Can the Empathic Underpinning of Counselling Psychologists Detect Gelotophobic Responses to Expressions of Joy Above Non-Counselling Psychologists and Psychology Others?

By

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Abstract

Gelotophobes have a negative attribution bias skewing appraisal of laughter meaning expressions of joy negatively affect interpersonal interactions and could be a barrier to positive outcomes in therapy. This study investigated participants' perceptions of gelotophobes and non-gelotophobes responding to expressions of joy and examined whether the empathic underpinnings of counselling psychology afforded greater empathy and was a predictive factor in correctly identifying facial affect. This study was a quasi-experimental design employing a quantitative method. Participants (N = 144) consisted of counselling psychologists (CP) (*n* = 44), non-psychologists (NP) (*n* = 54), and psychology other (PO) (*n* = 46). Participants were shown emotional stimuli, pre-coded using Facial Action Coding System (FACS), depicting gelotophobes and non-gelotophobes responding to expressions of joy and asked to identify the emotion from a choice of seven basic emotions. Participants also completed the Interpersonal Reactivity Index (IRI) and the Empathy Quotient (EQ) questionnaires to discern affective and cognitive empathy levels. Results found significant differences in the correct identification, and perception, of non-gelotophobes' and gelotophobes' facial affect. CP had significantly higher levels of cognitive empathy and identified significantly more gelotophobe emotional states than NP, but differences with the PO were non-significant. There was also a positive correlation between cognitive empathy and number of emotions correctly identified. Cognitive empathy, however, did not mediate between participant group and correctly identifying gelotophobes' facial affect; as such, further research is needed to understand these findings. There were also no significant differences in affective empathy. Research highlights factors contributing to gelotophobes' interpersonal difficulties, a factor in the development of gelotophobia, as well as factors that will facilitate positive therapeutic outcomes.

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Glossary of Acronyms

Term	Acronyms
Action Unit……..	(AU)
Autistic Spectrum Disorder……	(ASD)
Autism Spectrum Quotient……..	(AQ)
Avoidant Personality Disorder……	(APD)
Beta Values……	(B)
British Psychological Society……..	(BPS)
Affective Behaviour Therapy……..	(ABT)
Compact Disc……..	(CD)
Cognitive Behaviour Therapy…….	(CBT)
Confidence Intervals…….	(CI)
Counselling Psychologist……..	(CP)
Degrees of Freedom…….	(df)
Division of Counselling Psychology……..	(DCoP)
Emotionally Unstable Personality Disorder……	(EUPD)
Empathic Concern…….	(EC)
Eye Movement Desensitization and Reprocessing……	(EMDR)
Facial Action Coding System……	(FACS)
Fantasy Scale……	(FS)
Fear of Negative Evaluation scale…….	(FNE)
Five Factor Model…….	(FFM)
Functional Magnetic Resonance Imaging……	(fMRI)
High Functioning Autistic Spectrum Disorder……	(*hf*ASD)
Interpersonal Reactivity Scale……	(IRS)
Japanese and Caucasian Facial Expressions of Emotion……	(JACFEE)
Mean……..	(Mn)
Medium……	(*Mdn*)
Multi-Disciplinary Team……..	(MDT)
Non Psychologist……	(NP)
Personal Distress Scale……	(PD)

Perspective-taking Scale…… (PT)

Psychologist Other……. (PO)

Social Anxiety Disorder…… (SAD)

Standard Deviation……. (SD)

Standard Error……. (SE)

Statistical Manual of Mental Disorders, 5th edition……. (DSM-5)

Statistical Package for the Social Sciences……. (SPSS)

Test of Self-Conscious Affect…… (TOSCA-3)

The Empathy Quotient……. (EQ)

University of Wolverhampton…… (UOW)

11th Revision of the International Classification of Diseases…… (ICD 11)

Chapter 1 Introduction

1.1 Development of Research

Initial interest in gelotophobia was generated by a conversation with Dr Tracey Platt regarding this area of research. Following this, I undertook reading around the area and I became aware gelotophobia was still a relatively new concept which was exciting. Speaking to a clinical psychologist regarding their experience and difficulties of working with a client with the fear of being laughed at, helped to cement that this would be an interesting area of research. Moreover, the suggested use of the Facial Action Coding System (FACS) was of great interest as I was aware of Dr Paul Ekman's work from my MSc.

1.2 Relevance to Counselling Psychology

In counselling psychology, the role of the therapeutic relationship is considered salient to change (Orlans & Van Scoyoc, 2008). The core conditions of therapy necessary for positive change were postulated by Rogers (1951) to be empathy, congruence, and unconditional positive regard. Psychologists are required to be able to communicate empathic understanding and unconditional positive regard to their client. As such, the presence of gelotophobia has the potential to precipitate a fracturing of the therapeutic relationship by misinterpretations of the psychologist's metacommunication, i.e., a friendly smile or laugh from a psychologist could be perceived as ridicule or scorn. Gelotophobes have been shown to have a negative interpretation bias relating to laughter and smiling and tend to respond to expressions of joy with less joy and greater incidence of contempt facial configurations (Hofmann et al., 2015). For a counselling psychologist then, to be able to recognise incongruent metacommunication gives an opportunity to explore any misinterpretation, afford psychological intervention, and aid the building and maintaining of the therapeutic relationship.

1.3 A Note on Terminology

The terms gelotophobia and gelotophobe are used as a matter of course in this area of research. The present study has also used these terms rather than the more humanistic expression of 'an individual that experiences a heightened fear of being laughed at' to enhance readability and to align with previous research. It is acknowledged, however, that labels of this ilk can cause tensions and challenges for counselling psychologists, and potential difficulties for clients, and as such the use of these terms is explored further in the literature review, along with the actions that have been taken to inhibit potential difficulties arising.

1.4 Structure of Thesis

This thesis comprises of four main sections: literature review, method, results, and discussion. The literature review consists of two chapters relating to gelotophobia and counselling psychology. Literature review part 1 (Chapter 2) focuses on the concept, development, and measurement of gelotophobia, as well as understanding where gelotophobia sits within current diagnoses and considers the use of a specific label for the heightened fear of being laughed at. Literature review part 2 (Chapter 3) explores how the empathic foundations of counselling psychology may contribute to recognising facial affect and its subsequent impact on working with gelotophobes. In doing this, the second part of the literature review brings together counselling psychology, metacommunication, facial affect recognition, and empathy and its development. Method (Chapter 4) outlines the methodology rationale before providing the details of how this study was conducted. Results (Chapter 5) outlines the data analysis and findings of the study. Discussion (Chapter 6) provides a discussion of the research findings, highlighting where they sit within, and elaborates on existing research, outlining the implications for gelotophobia and clinical practice.

1.5 Introduction to Research

In a typical population, it tends to be assumed that the expression of a smile or the vocalisation of laughter will be positively inferred (Ruch et al., 2013). The dualistic nature of laughter, however, whereby it can be incorporated in ridicule and shame, has a long history of being observed (e.g., Hobbes, 1651). It is postulated that repeated traumatic experiences of being ridiculed via laughter, in conjunction with complex intersubjective factors incorporating systemic feedback loops, leads to the heightened fear of being the object of laughter (Ruch & Proyer, 2008). This phenomenon, known as gelotophobia, the fear of being the laughed at (Titze, 2009), exists on a continuum between no to extreme gelotophobia (Ruch & Proyer, 2008). Gelotophobes have a negative attribution bias skewing appraisal of laughter; thus the dichotomous nature of laughter becomes problematic (Platt, 2008; Ruch, Altfreder et al., 2009). This negatively affects interpersonal interactions for gelotophobes, hindering them from forming and maintaining relationships (Platt & Forabosco, 2014).

Metacommunication within interpersonal interactions incorporates encoding and decoding of facial expressions (Zuckerman et al., 1975; Zuckerman et al., 1976) and, as such, the ability to interpret signals of communication is advantageous in social interactions. Facial expressions communicate an emotional state to others via an encoding face and decoding brain which affords individuals the ability to infer emotional states and respond accordingly (Smith et al., 2005). Typically, this can be arranged into seven universal expressions of emotion: fear, joy, contempt, sadness, disgust, anger, and surprise (Ekman, 1992; Ekman & Friesen, 1975). Individuals have autonomy over facial expressions, however, allowing emotions to be masked or faked; thus, facial expressions cannot merely be considered innate expressions of emotion (Ekman, et al., 1981).

It is postulated that facial expressions of emotion have specific facial configurations related to different emotions. For example, the emotion of joy tends to be accompanied by a

facial configuration called the Duchenne display (Ekman et al., 1990) which incorporates the joint and symmetric contraction of the zygomatic major and orbicularis oculi muscles: pulling the lip corners back and upwards; raising the cheeks and compressing the eyelids resulting in eye wrinkles (Ekman et al., 1987). Non-Duchenne smiles do not activate the orbicularis oculi muscles and tend to serve a social function such as the concealment of a negative emotion (Surakka & Hietanen, 1998). A contempt smile, however, incorporates unilateral action of the buccinators muscle (Ruch et al., 2013). This is of relevance to gelotophobes as they tend to have higher incidents of contempt displays and express less joy when responding to expressions of joy (Hofmann et al., 2015).

Gelotophobia is still not incorporated into psychological formulations or psychiatric diagnoses despite evidence of its existence found across 73 countries, in clinical and non-clinical populations (Proyer et al., 2009). This can lead to individuals being misdiagnosed (Platt et al., 2016). The role of empathy may be salient to positive outcomes in therapy. Besel and Yuille (2013) found an association between cognitive and affective empathy in relation to the ability to recognise facial expression, i.e., greater empathy positively correlated with identifying facial affect. Given that gelotophobes tend to respond to expressions of joy with greater incidents of incongruent facial configurations, the empathic values of counselling psychology could be beneficial in identifying this facial affect.

The therapeutic relationship is considered salient to change in counselling psychology as its foundations are built upon humanistic values, particularly the person-centred approach (Orlans & Van Scoyoc, 2008). Rogers (1961) believed we all have an actualising tendency towards health and postulated there are three core conditions necessary to facilitate change: empathy, congruence, and unconditional positive regard. Rogers demonstrated that for therapy to be successful, psychologists need to be able to communicate empathic understanding and unconditional positive regard to their client. Metacommunication issues

can therefore fracture therapeutic relationships (Safran et al., 1990) and, as such, the unwitting presence of gelotophobia could result in unsuccessful outcomes following a client wrongly appraising a friendly smile or laugh from a psychologist.

Chapter 2 Literature Review Part 1: Gelotophobia

2.1 Literature Review Search Strategy

For this literature review, the University of Wolverhampton's library collection online, British Psychological Society's (BPS) Journals via PsychSource, EBSCO Psychology, Behavioural Sciences Collection, Evidence-Based Mental Health, BJEP Monographs, Wiley Journals, Google, and Google Scholar were searched. A plugin for Google Chrome 'Unpaywall' was used to harvest open access repositories of journal articles. In doing this, ResearchGate, PubMed Central, Sci-Hub, and up to 50,000 further online content hosts were searched.

Relevant literature areas of interest were identified for a narrative literature review relating to gelotophobia, in psychotherapeutic practice, facial coding and empathy. All literature relating to these areas was searched. Searches were undertaken between May 2016 and May 2019 and no date parameters were set for searches. No language parameters were set on searches; two German language papers were automatically translated by Google.

All paper titles were visually inspected to assess their suitability, which established a list of papers that appeared relevant to the present research aims. Following the primary examination, a secondary review was undertaken of titles and abstracts to establish a list of full texts to be examined. Bibliographic snowballing was used throughout: Bibliographic details from articles that matched the search criteria were examined for assigned indexed terms and further relevant references.

The following key terms were used in searches: gelotophobia, fear of being laughed at, gelotophobia DSM, gelotophobia autism, gelotophobia ASD, gelotophobia personality disorder, gelotophobia social anxiety disorder, gelotophobia a specific phobia, social anxiety, social phobia ridicule, fear of ridicule, laughter, gelotophobia and attachment, attachment, facial recognition, internal working models, internal working models and gelotophobia, internal working models and trauma, trauma, PTSD, trauma and gelotophobia, PTSD

gelotophobia, empathy, development of empathy, empathy and facial recognition, counselling skills and empathy, empathy training, empathy and facial affect, Facial Activation Coding System and FACS, as well as combinations of the aforementioned terms.

On establishing relevant journal papers, Scimago Journal Check was used to help inform weight given to existing research. Journals with a Quartile 1 and 2 ranking were considered gold standard. This research was mindful however that gelotophobia is a relatively new and niche area of research and, as such, some of the area-specific journals can have a lower ranking. As such, any research in journals with a Quartile 3 ranking was not dismissed but assessed for scientific accuracy.

2.2 Gelotophobia the Concept

The concept of gelotophobia derives from Paul Hartenberg's (1901) publication on 'timid' individuals which highlighted individuals with a sensitivity to being laughed at. This concept was developed further by Michael Titze (1995, 1996, 1997) following clinical observations. Titze coined the term gelotophobia relating to the heightened fear of being laughed at and suggested a causal chain of prolonged mockery and ridicule, early in life, in conjunction with having been treated in a facetious manner.

Gelotophobia is often misleadingly referred to as 'the fear of been laughed at', as fearing being the object of laughter seems a reasonable concern. Gelotophobes, however, tend to believe others are constantly observing them for evidence of ridiculousness which would induce laughter at their expense. Extreme gelotophobia induces a specific paranoid tendency towards being the object of laughter and incorporates a marked sensitivity to offence and social withdrawal (Titze 1996). Gelotophobia, 'gelos' the Greek for laughter, can therefore be defined as a heightened fear of being the object of ridicule via laughter by social partners (Ruch & Proyer, 2008).

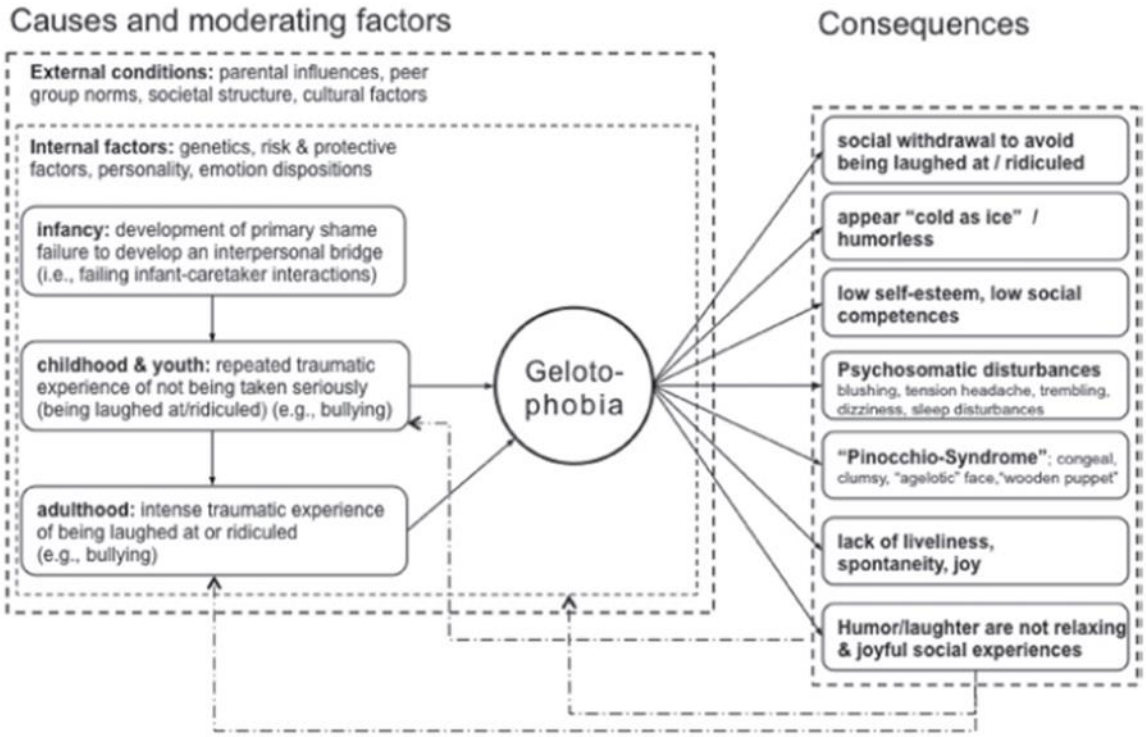
2.3 The Development of Gelotophobia

In understanding the precipitating factors of gelotophobia, originally a theoretical causal chain model of putative causes and consequences was developed whereby gelotophobia operates as a shame-bound anxiety, originating through early experience in infancy, which leads to a fixated heightened self-awareness and self-control. In infancy, a gelotophobe's caregiver reflects a blank face, never a smiling face, leaving the child with an 'interpersonal bridge'; thus, the child fails to connect to the caregiver and, later in life, others. Herein, the caregivers of gelotophobes impose an idiosyncratic perception of the world onto their offspring and should the child deviate from the 'parental script', the child is punished with ridicule and scorn. This is also reinforced by being the object of laughter and scorn whilst at school, during adolescence, and latterly at work. As such, these young people tend not to encounter laughter in a positive, prosocial, and bonding manner; rather they tend to experience it only in the form of hostility. Prolonged malicious treatment of an individual in this manner can have the pernicious effect of leaving an individual with a pervasive fear of being the object of ridicule and scorn and in a state of 'agelotic', i.e., unable to appreciate the benefits of laughter (Ruch & Proyer, 2005, 2008; Titze, 1997, 2009).

The original linear model proposed by Titze of punitive causes and consequences has been developed into a more systemic model of feedback loops operating across many levels and incorporating etiological moderating factors (Ruch et al., 2014), as can be seen in Figure 1.

Figure 1

Displays a model of gelotophobia incorporating causes, moderating factors, and consequences



Note. Redrawn with permission from "The state-of-the art in gelotophobia research: A review and some theoretical extensions," by W. Ruch, J. Hofmann, T. Platt, and R. Proyer, 2014, *Humor*, 27, p. 9.

A salient addition to the developmental model of gelotophobia was systemic feedback loops (Ruch, Hofmann et al., 2014). Henri Bergson (1900) first suggested individuals who are the object of ridicule and scorn via laughter take on the appearance of wooden puppets or marionettes. Individuals in these situations tend to emit nonverbal clues that indicate their affective state of feeling uneasy. In these situations, it is suggested that emotional panic leads to muscular tension and stiffness and presents as individuals appearing not to move in a typical manner as they try deliberately to control their body movements. This 'wooden appearance' has been referred to as the 'Pinocchio-Complex' (Titze, 1995, 1996, 1998, 2007, 2009, 2013). As such, individuals expecting to be the recipient of ridicule adjust their mannerisms accordingly in a maladaptive effort to cope. However, this manner is perceived

as atypical by others, leading to further ridicule; thus, consequences and elicitors become looped (Ruch, Hofmann et al., 2014). Moreover, in perceiving others as ridiculing them, gelotophobes tend to react to expressions of joy, displaying greater incidence of contemptuous facial configurations and showing less joy (Hofmann et al., 2015), which seemingly compounds and maintains their interpersonal difficulties. It should be noted, however, that some of these atypical metacommunication presentations are in keeping with individuals who have had traumatic experiences.

The early model of gelotophobia was revised to also include a mix of internal and external factors. Internal factors incorporating parental influences, personality, genetics, emotional predisposition, and interpersonal skills factors were added. External moderating factors such as peer group dynamics, culture, and social structure were also included. These new factors, however, can act not only as risk factors but also as protective factors. This helped to account for some variance in individual experience, as not all individuals who experienced the original punitive factors went on to develop gelotophobia (Ruch, Hofmann et al., 2014). The evidence regarding internal factors is examined further in the following sections and it should also be noted that, at the present time, external factors still require further investigation.

2.3.1 Gelotophobia, Internal Working Models and Attachment

The heightened fear of being laughed at and family interaction are closely related (Proyer, Estoppey et al., 2012). Moreover, individuals that fail to feel loved or appreciated by their caregiver in infancy are more likely to lack a sense of belonging and in turn have an increased probability of experiencing the heightened fear of being the object of laughter (Proyer & Neukom, 2013). A salient factor in an infant's development is their attachment to their caregiver and the ability of their caregiver to provide a secure base. Infants have an innate instinct to seek safety and comfort from their parents. A child will signal with

heightened arousal to elicit contact or proximity to the caregiver by crying, smiling and locomotion (Bowlby, 1988). How the caregiver responds to a child's needs forms mental representations known as an internal working model (IWM). These consist of expectations about the self, significant others, and the interaction between the two. Internal working models mediate perception of one's own and others' behaviour: whether you believe you are loveable and worthy of love and whether you believe others are available and interested in helping support you (Ainsworth, 1989; Bowlby, 1979). As such, a caregiver–child attachment style would be expected to be involved within the development of gelotophobia, especially as there is a correlation between individuals that fail to establish a bond with caregivers in infancy and an increased probability of bullying in adolescence (Ruch, 2014). It has been found that as 'good attachment' increases, the sense of bond intensity and gelotophobia decreases (Chen et al., 2011; Wu et al., 2015). Moreover, attachment has also been examined as a mediating factor within parenting style and it has been found that caregiver–child attachment has a direct and indirect influence on perceived parental care, protection, and children's heightened fear of being laughed at (Wu et al., 2018). Further research found a relationship between attachment anxiety, aggressive humour, and gelotophobia where attachment anxiety correlated with greater aggressive humour and gelotophobia. Attachment avoidance, however, was negatively correlated with humour orientation (i.e., humour that is prosocial and has a positive attribution) and positively related to gelotophobia. Gelotophobia was unsurprisingly negatively related to humour production; however, more interestingly, gelotophobia appeared to mediate the relationships between attachment anxiety, humour aggressive scale, attachment avoidance and humour orientation scale. This research suggested insecurity is an important factor in respect of individual differences in the encoding of humour, where insecurity invokes the heightened awareness of being the object of laughter (Miczro, 2017).

Parenting style, however, also affects parent–child attachment (Lau et al., 2012). Parenting style refers to the caregiver's attitude and beliefs regarding childrearing, incorporating care and protection, whereby care relates to affection between caregiver and child and protection is more concerned with curtailing the child's behaviour; should a child feel a parenting style is too demanding, however, it is then considered negative discipline (Carlo et al., 2007). Caregivers of gelotophobes are linked to being overprotective and controlling in their parenting style, and gelotophobes tend to report more punitive events and less warmth than a typical population, though at present other family factors could not be ruled out (Proyer, Estoppey et al., 2012; Wu et al., 2018).

The research regarding attachment and parenting style lends weight to its involvement in the formation of gelotophobia. Further support of the role of attachment and gelotophobia comes from research examining gelotophobia in relation to internal working models (IWM) of attachment and romantic relationships later in life. According to Bowlby's (1988) concept of the IWM, early experiences with the attachment figure lead a child to develop expectations regarding relationships with others. IWMs therefore form the lens through which an individual interprets their experiences and interactions with others, as well as predicts experiences in future relationships. It would be expected therefore, that should an individual's IWM be affected by gelotophobia, then it would also be present within romantic relationships within adulthood.

Research has found that there is a higher probability of gelotophobes being single than non-gelotophobes and this was consistent across all ages (Platt & Forabosco, 2012; Ruch & Proyer, 2008). This pattern has been attributed to gelotophobes disengaging from romantic relationships when they encounter a smile, or laughter, following misattributing its meaning (Platt et al., 2016), which is in keeping with attachment theory of internalising negative expectations of self and others (Bowlby, 1982). Support for this has been found with a study

which examined gelotophobia, gelotophilia, and katagelasticism association with romantic attachment styles and romantic outcomes in adults. Gelotophilia is a term that describes individuals that take excessive enjoyment from being the object of laughter and katagelasticism describes individuals that take, and actively seek, excessive enjoyment from laughing at others. The study found that gelotophobia had a positive correlation with anxiety and avoidant attachment styles, and gelotophobes were less likely to enter romantic relationships. Gelotophilia was related to lower avoidance and katagelasticism was not related to any specific attachment style; it has also been found that attachment style mediated laughter disposition and romantic satisfaction (Brauer et al., 2019).

Further evidence for the role of attachment with gelotophobes was found by Canestrari et al. (2019) and went beyond romantic attachment. They expanded on previous research by examining whether the social life satisfaction of individuals with gelotophobia, gelotophilia and katagelasticism is modulated by parental attachment. They found that a highly satisfactory social life is related with low levels of gelotophobia and high levels of parental attachment, as well as differences in coping strategies, i.e., gelotophiles tended to use control strategies to cope with difficulties, whereas gelotophobes tended to withdraw socially in perceived difficult situations.

The research on gelotophobia, attachment, and romantic relationships partly supports the view that the heightened fear of being laughed at relates to attachment style and the success of future relationships. There is still a need, however for further research in this area, particularly around IWMs and attachment. Also, there is a need to rule out comorbidities and confounds being responsible for the findings, i.e., gelotophobia has been found to overlap with autistic spectrum disorder (ASD), emotionally unstable personality disorder (EUPD) and social anxiety, and all these difficulties have also been found to relate to insecure attachment styles (Agrawal et al., 2004; Beurkens et al., 2012; Eng et al., 2001). There is already a well-

established link between attachment style and the probability of a successful relationship (Butzer & Campbell, 2008), as well as links between insecure attachment and aversion towards romantic relationships (Feeney & Noller, 1990). As such, until the comorbidities are controlled it is not possible to fully gauge the impact of gelotophobia on attachment. Moreover, meta-analysis has found a similar pattern between trauma symptoms and attachment styles, where insecure attachment positively correlates with trauma symptoms (Woodhouse et al., 2015). As such, were it to be that gelotophobia was merely trauma symptoms precipitated by a specific trigger of people laughing, the same patterns would be expected to be found. At present there has been no research focusing on gelotophobia and trauma, so it is not possible to exclude this possibility. The present understanding of trauma and where gelotophobia sits within it will be explored further later in the paper.

2.3.2 Gelotophobia and Bullying

Titze (1996) originally postulated that individuals with a heightened fear of being laughed at would tend to appraise laughter incorrectly due to experiencing bullying, i.e., gelotophobes tend to have a faulty alarm in detecting when they are being ridiculed. Support for this was originally found by Platt (2008) who found gelotophobes experience negative emotional affect in relation to good-natured teasing, which was in keeping with the emotional profile of bullying-related ridicule. This relationship was further explored by Platt et al. (2009); they reported a correlation between the emotions experienced in teasing and ridicule-type scenarios and the self-reported status of being a victim of bullying. Participants who indicated having been bullied reported that they would be less likely to experience joy in good-natured teasing situations, in conjunction with experiencing greater levels of fear and shame. Further to this, participants who had been bullied displayed higher scores in fear and lower ones in happiness. As such, experiencing bullying is related to generally lower scores in happiness and higher fear scores. Platt and Ruch (2009) also found a positive correlation

between the experience of being bullied and gelotophobia, and Samson et al. (2011) confirmed a relationship between gelotophobia and the experience of being the object of ridicule. The research to date indicates that the heighted fear of being laughed at is persistent after being tormented at a younger age (Liu et al., 2014).

A critical factor in gelotophobia incorporates gelotophobes' appraisal of interpersonal interactions and their subsequent emotional topography (Platt & Ruch, 2009). In exploring this, Platt (2008) examined the emotional responses of gelotophobes and non-gelotophobes in relation to playful teasing and found gelotophobes tended to respond emotionally as if they were the object of ridicule. Further research utilised positively motivated laughter which was presented to participants acoustically and found gelotophobes experienced the laughter as more unpleasant than non-gelotophobes. Moreover, those without the heightened fear of being laughed at, experienced an increase in mood. In a further test that was semi-projective in nature, the gelotophobe participants tended to perceive ambiguous laughter in a more pejorative manner; thus, they were more likely to perceive themselves as being the object of the laughter (Ruch, Beermann et al., 2009). This therefore appears to support the belief that gelotophobes have a heightened suspicion of being the object of ridicule regardless of context (Ruch & Proyer, 2009).

The research on gelotophobia with children and adolescents is limited at present, with many questions remaining regarding gelotophobia in childhood and adolescence, including its causes and consequences (Führ et al., 2015). Moreover, it is noticeable there is no research to date that is qualitative in nature relating to gelotophobia and, as such, the voice of individuals' experiences of the heightened fear of being laughed at is missing.

2.3.3 The Role of Personality and Character

Being an object of laughter leads to inhibition of behaviour, inducing strong negative emotions and giving an individual the impression they have done something wrong. Understandably, therefore, repeated experiences of pejorative behaviour could impact personality traits, with innate dispositions interacting with the environment (Ruch et al., 2008). In the punitive model of gelotophobia, a factor within its development has partly been attributed to personality. Using the Five Factor Model (FFM) and Eysenckian PEN-model of personality, gelotophobia has been examined numerous times and across different nationalities. Consistent findings indicate gelotophobes tend to be introverted neurotics in nature and correlated with low agreeableness and openness (Ďurka & Ruch, 2015; Proyer & Ruch, 2010; Ruch et al., 2013; Ruch et al, 2008). Global personality aspects, however, do not fully account for gelotophobia and there are differences with lower order concepts (Ruch et al, 2013). It appears, therefore, that personality is a factor in the development of gelotophobia. It is not possible, however, from any of these studies to differentiate how much gelotophobia has contributed to personality traits and, as in many cases, no effort was made to explore comorbid difficulties, which may account for the differences in lower order concepts.

In respect of character, a number of studies have found a relationship between strength of character and reaction to ridicule and being laughed at. In gelotophobes, modesty appears to be a core strength, but there is a negative correlation with humour, curiosity, zest, love, hope, and bravery, which is in keeping with gelotophobes' presentation (Proyer, Wellenzohn et al., 2013). Proyer & Ruch (2009) examined 346 adults with GELOPH <15> and the Values in Action Inventory of Strengths questionnaire. They found that self-report ratings of virtuousness were lower compared to peer-report ratings, indicating gelotophobes underestimate their own level of virtuousness in comparison to peers' perceptions. In fact,

there was a positive correlation between gelotophobia and peer ratings in numerous factors: prudence, open-mindedness, modesty, appreciation of beauty, excellence, and spirituality, i.e., as the level of gelotophobia increased, as measured by the GELOPH <15>, so did peer ratings of the aforementioned factors. These findings indicate that gelotophobes' perceptions of themselves are different from their peers', which may contribute to some of their interpersonal difficulties, such as withdrawing from social situations due to negatively skewed perceptions of their interactions. Understanding further these discrepancies in perception between gelotophobes and their peers may help inform therapeutic interventions for gelotophobes.

Measures of character have also been explored across gelotophilia and katagelasticism. Gelotophilic individuals take pleasure from others laughing at them and actively seek situations to be laughed at. Research has found that gelotophilic individuals overestimate their levels of virtuousness in comparison to peers' perceptions (Proyer, Wellenzohn et al., 2013). It may be that their misperception is driven from the positive feedback of others laughing at/with them (Renner & Heydasch, 2010). Gelotophilia does, however, positively correlate with strengths in love, bravery, zest, gratitude, creativity, kindness, and social intelligence. Strengths of character, therefore, largely negatively correlate with gelotophobia but overall, positively correlate with gelotophilia. Katagelasticism, which is the heightened experience of enjoying laughing at others, appears to have no relationship with strengths of character. Katagelasticism correlates with cold-heartedness and being perceived to be cold and rude, which is in keeping with katagelasticism's propensity to perceive laughing at others as part of everyday life and actively seeking situations to action this belief. Katagelasticists' perceptions of themselves correlate with peers' perceptions, indicating a realistic view of themselves. When it comes to character, therefore, gelotophobes appear to see themselves as low in character strengths, but

those high in gelotophilia perceive themselves as high in character strengths, and those high in katagelasticism are unconcerned with strengths of character (Proyer, Wellenzohn et al., 2013).

2.4 The Measurement of Gelotophobia

In moving on from examining the development of gelotophobia, the next section focuses on how it can be assessed and measured. It is postulated gelotophobia exists on a continuum from no gelotophobia to extreme gelotophobia (Ruch & Proyer, 2008). Cross-cultural research has found the presence of gelotophobia in 73 countries. This substantial research involved a total of 95 researchers and 22,610 participants in 93 samples across 73 countries (Proyer et al., 2009). The prevalence of gelotophobia has also been found in both clinical and non-clinical populations across many different countries (Platt & Forabosco, 2012).

Original investigations into gelotophobia were derived from clinical case studies, with the presence of gelotophobia established via clinical judgement within a clinical interview-based assessment (Ruch & Proyer, 2007). Gelotophobia was originally explored empirically to validate the concept via GELOPH <46> (Ruch & Titze, 1998): a subjective assessment measure using 46 statements relating typical behaviours and attitudes of gelotophobes. Discriminant function analysis found a group of diagnosed gelotophobes could be significantly separated from a group of shame-based neurotics and normal control groups. The findings were further supported by factor analysis, as well as self-reports correlating affectively with clinical judgements of gelotophobia and as such the GELOPH <46> was considered a valid indicator of gelotophobia (Ruch & Proyer, 2007).

Ruch and Proyer (2008) further developed GELOPH <46> and made a more concise 15-item questionnaire (GELOPH <15>) featuring core items of gelotophobia and incorporating a comparative cut-off scale which indicates if an individual has slight,

pronounced or extreme gelotophobia. The cut-offs for this self-report instrument are no gelotophobia, borderline, slight, marked, and extreme gelotophobia. In non-clinical samples across the world, typically the rate of slight gelotophobia is low (between 1.2 and 10%) and tends not to exceed 1% of the population (Platt & Forabosco, 2012). In clinical samples, however, rates of 40% for slight gelotophobia and 10% for extreme gelotophobia have been reported (Forabosco et al., 2009; Samson et al., 2011). This efficient measure has been found to have robust psychometric values and has been translated into over 40 different languages and found to be reliable as a unidimensional instrument in assessing gelotophobia (Forabosco et al., 2009; Ruch, Altfreder et al., 2009; Ruch & Proyer, 2008b; Samson et al., 2011). The English version was translated by Platt et al. (2009) and once again found to have good psychometric properties (high reliability; $\alpha = .90$).

Further measures have also been developed such as the PhoPhiKat which has a 45-, 30- and 9-item version as well as a child version. This measure examines not only gelotophobia but also other aspects of humour-related issues such as gelotophilia and katagelasticism. The PhoPhiKat affords an examination of the relationships of gelotophobia, gelotophilia and katagelasticism. Gelotophobia and gelotophilia unsurprisingly have been found to be negatively correlated; as an individual's level of gelotophobia increases, their gelotophilia decreases. Katagelasticism is positively correlated with gelotophilia; however, no relationship between katagelasticism and gelotophobia has been found. As such, this indicates that some gelotophobes also engage with laughing at others and some might not. Numerous studies of the PhoPhiKat have been undertaken which have shown it to have good test-retest reliability and validity (Hofmann et al., 2017; Ruch & Proyer, 2009; Ruch, Hofmann et al., 2014).

In addition to the multi-humour dispositional approach of the PhoPhiKat, a multi-method approach for assessing gelotophobia has been developed. This is a picture-based

measure (Picture-Gelpog <9>) which uses cartoons depicting social situations incorporating the potential for laughter situations. This measure has also been found to have good test-retest reliability and validity; in addition, it has been shown to correlate well with the GELOPH <15> (Ruch, Altfreder et al., 2009; Ruch et al., 2017).

The last section outlined the different measures developed to assess gelotophobia, which have been used in 73 countries. As such, the term or label 'gelotophobia' has been propagated across many nations and cultures. The next section examines: the negatives and benefits of using such labels, the alternative approach of psychological formulation, and how labels, and diagnoses, sit within the philosophical stance of counselling psychology.

2.5 To Diagnose or Not to Diagnose?

Gelotophobia is not present in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) (American Psychiatric Association, 2013), and not present in the 11th Revision of the International Classification of Diseases (ICD 11) (World Health Organisation, 2019). Although gelotophobia is not considered a specific pathology (Ruch et al., 2014), at its extreme end it is a maladaptive belief relating to being a figure of ridicule (Ruch & Proyer, 2008). A criticism of the psychiatric taxonomy approach is the diagnostic labels locate any difficulty within the individual and ignore the societal context and interpersonal relations as the precipitating factors of the unhappiness (Hare-Mustin & Marecek, 1997). This is of particular relevance to gelotophobia given it is believed to arise from repeated experiences of being ridiculed via laughter. As such, the individual's social interactions within their environment and subsequent feedback loops give rise to their difficulties. This diagnostic approach therefore raises ethical debate as it could leave an individual feeling like they are not 'normal', whereas the focus should be on the system that has given rise to the difficulties and where the problem was located. In this sense, the

heightened fear of being laughed at was merely a way of protecting oneself, albeit an unhelpful one, from a hostile environment.

A possible disadvantage of using a term such as gelotophobia, therefore, is it has the potential to become a label, or even a diagnosis, that imbibes stigma within an individual. Attribution theory suggests that labels in mental health precipitate stigma following the formation of stereotypes and in turn discrimination (Corrigan, 2006), and these stereotypes are not just upheld within the general public but also found within mental health professions (Keane, 1990; Lyons & Ziviani, 1995). The use of a label, or diagnosis, can also imply that all individuals within that group are homogeneous, and therefore once more initiate stereotypes (Corrigan, 2006). In avoiding precipitating further discrimination, it has been suggested new diagnoses or labels should avoid being categorical; rather, any difficulty should be seen on a continuum (Widiger, 2001). Moreover, in combating the formation of stereotypes, and stigma, a large body of evidence has found the role of education is salient (Corrigan & Penn, 1999).

The challenges of using labels and a diagnostic approach are of pertinence for counselling psychology as its philosophical stance is founded upon humanistic values where there is "respect for the personal, subjective experience of the client over and above notions of diagnosis, assessment and treatment" (Lane & Corrie, 2006, p. 17). Counselling psychology's position has moved slightly since its inception, however, following pressure from economic contextual factors of working within organisations such as the NHS (Douglas, 2010). Working in environments such as the NHS highlighted a need for shared language with other professionals, as well as a need to manage a professional identity within a medical topography, which has provided a tension for counselling psychologists by requiring them to traverse humanistic and scientific-practitioner values (Larsson et al., 2012).

The conflict between counselling psychology values and working alongside the medical model, however, has been posited to leave individual practitioners in a state of conflict. In managing these tensions, the pluralistic approach has been used in modern counselling psychology training to help traverse conflicting positions by the practitioner holding multiple epistemological positions (Frost, 2012). The pluralistic approach suggests that individuals benefit from different therapeutic approaches at different points in time. Pluralism, therefore, affords a fluid response in keeping with an individual's needs (Cooper & McLeod, 2012). Some psychological models sit comfortably within a medicalised approach, but others have a more uncomfortable ontological and epistemological relationship. It has been postulated, however, that any ontological and epistemological conflicts occurring can be managed within the pluralistic approach by engaging in critical thinking in conjunction with the ability, and willingness, to reflect on assumptions and values to avoid biases (Cosgrove, 2005).

An alternative to the diagnostic approach is that of psychological formulation, which has been defined as a holistic narrative that synthesises individuals' experiences with clinical theory and research (Friedberg, 2010). Formulation can help practitioners understand salient difficulties, predisposing and perpetuating factors, and identify interventions as well as anticipate challenges for the course of the therapy. A strength of formulation is it can go beyond diagnosis and help elucidate idiosyncratic presentations and experiential etiological factors of difficulties, thus avoiding the homogeneous nature of diagnosis regardless of the psychological model used (Macneil et al., 2012). In this sense, individuals could receive therapy for the heightened fear of being laughed at without the need for any label or diagnosis. Many psychologists, however, despite not taking a diagnostic approach, have still reported to doubt the existence of gelotophobia based on having not encountered the difficulty (Ventis & Platt, 2014). In exploring this, preliminary research found gelotophobes

often do not attend therapy with the heightened fear of being laughed at as their presenting difficulty due to feeling it is frivolous and will not be taken seriously. Moreover, burgeoning therapeutic relationships can fracture within initial meetings by misinterpretation of metacommunication when a reassuring smile is decoded as scorn or contempt (Platt et al., 2016) and, as such, therapy is discontinued prior to a full formulation taking place.

It should be noted there are also benefits of incorporating diagnoses into mental health: For instance, diagnostic categories can help clients understand their difficulties, feel like they are not alone with their difficulties, and it can help an individual feel their difficulties are validated and contained. From a professional stance, it affords the organisation of client information and moreover the diagnosis facilitates understanding. This is of great importance for individuals being supported by multi-disciplinary teams (MDT) as it gives a shared understanding when describing patterns of experience and behaviour across the different professions and training (Perkins et al., 2018), as well as highlighting and facilitating further areas of research (Freeth, 2007).

At present, research into the heightened fear of being laughed at uses the terms ‘gelotophobia’ and ‘gelotophobe’ as a matter of course. The present research has also used these terms rather than the more humanistic expression of ‘an individual that experiences a heightened fear of being laughed at’. This has been undertaken to enhance readability, to be in keeping with previous research, and with the belief the term ‘gelotophobia’ sparks interest and facilitates greater awareness of the difficulty. In the next section, this research also looks at gelotophobia research in relation to other diagnoses; this is because gelotophobia is a relatively new area of research and a frequent criticism is that it can be better explained by pre-existing difficulties. That being said, to counter the formation of any new stereotypes, this research will highlight that gelotophobia occurs on a continuum and holds the stance that gelotophobia does not just occur within an individual but within a system; and it will seek to

reflect on, and highlight, the role of the system in its conclusions in a further effort to combat possible stigma associated with a 'label'. Furthermore, it will highlight that gelotophobia in the future would be best dealt with by prevention within the system rather than placing the responsibility within the individual.

2.6 Is It a Phobia?

An experimental validation was undertaken to examine the heightened fear of being laughed at. The study consisted of three groups: The first group was made up of participants with no fear of being laughed at, the second group consisted of participants that were borderline, and the third group had a heightened fear of being laughed at (gelotophobic). The participants listened to tape recordings of laughter which reflected an array of emotions; herein participants scored the recordings and assessed the emotional motivation of the laughter. The study found gelotophobes perceived positively motivated laughter as more unpleasant than non-gelotophobes, and gelotophobes tended to perceive the person laughing as experiencing a negative emotional state. Borderline gelotophobes as well as non-gelotophobes were more likely to perceive the individual laughing as experiencing negative affect. Interestingly, however, participants without gelotophobia were more likely to experience an increase in mood following listening to the laughter. The second part of this study used 20 cartoons of social situations which incorporated laughter or possibly someone being the object of the laughter and asked participants what the individual in the cartoon would think. Gelotophobes' answers incorporated more thoughts of mockery and fears of being laughed at than the other participants (Ruch, Altfreder et al., 2009).

The DSM-5 defines a specific phobia as arising when an individual experiences an intense fear or anxiety relating to specific objects or situations. Phobias are defined as extreme or irrational fears, often persistent, that result in individuals avoiding the object or situation. A specific phobia relates to a particular stimulus that invokes fear, anxiety, or

avoidance of the object. The DSM-5 criteria for a specific phobia are detailed below (American Psychiatric Association, 2013).

1. A persistent fear that is excessive or unreasonable, that occurs by the presence or anticipation of a specific object or situation (e.g., flying, heights, animals, receiving an injection, seeing blood).
2. Exposure to the feared item or situation almost always leads to an immediate anxiety response which may take the form of a panic attack. In children, the anxiety may be expressed by crying, tantrums, freezing or clinging.
3. The person recognises that the fear is excessive or out of proportion to the actual threat posed. In children, this feature may be absent.
4. The phobic situation(s) is avoided or else is endured with intense anxiety or distress.
5. The avoidance, anxious anticipation or distress during the feared situation(s) interferes significantly with the person's normal routine, work (or school) functioning, or social activities or relationships, or there is marked distress about having the phobia.
6. The fear is persistent, typically lasting for at least six months.
7. The anxiety, panic attacks or avoidance associated with the specific object or situation are not better accounted for by another mental disorder, such as Obsessive-Compulsive Disorder, Posttraumatic Stress Disorder, Separation Anxiety Disorder (e.g., avoidance of school), Social Phobia, Panic Disorder, etc.

In respect of point seven of the specific phobia diagnostic, gelotophobia has been related to established diagnoses such as a social anxiety disorder (SAD), emotionally unstable personality disorder (EUPD) and autistic spectrum disorder (ASD). The following sections will explore the research to date related to these diagnoses and what indication this gives as to where gelotophobia presently sits within the DSM-5.

2.6.1 Gelotophobia and Social Anxiety Disorder (SAD)

The predominant, established diagnosis that gelotophobia is often attributed to, is social anxiety disorder (SAD), also known as social phobia or avoidant personality disorder (APD) (Havranek et al., 2017). In fact, it has been suggested at times that gelotophobia is just social phobia repackaged (Platt et al., 2016). According to the DSM-5 (American Psychiatric Association, 2013), SAD is a 'marked and persistent fear of social or performance situations

in which embarrassment may occur' (p. 456). DSM-5 also denotes APD as a cluster C personality disorder characterised by a pervasive pattern of social inhibition, feelings of inadequacy, extreme sensitivity to negative evaluation, and avoidance of social interactions.

Havranek et al. (2017) examined a clinical sample of 133 participants (64 psychiatric patients and 69 healthy controls matched for age and sex) in relation to SAD, APD, and gelotophobia using the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders (4th edition) and an established rating instrument for gelotophobia (GELOPH <15>). They also compared numerous other mental health conditions too, such as schizophrenia, depression, panic disorder, cluster A personality disorder, and other specific phobias, and found gelotophobia related greater to SAD and APD, though their sample size across the different psychiatric disorders was relatively small. They found, however, that gelotophobia scores and the number of gelotophobic individuals were higher in patients compared to control participants, and higher in patients with SAD and APD compared to patients with other psychiatric disorders. They did also, however, find the presence of gelotophobia without the presence of SAD or APD; thus, it would seem unlikely gelotophobia is a subtype of SAD or APD. Rather, they suggested the fear of being laughed at could be a characteristic for SAD and APD (Clark et al., 2017).

Several other studies have examined whether there is a link between SAD and gelotophobia as gelotophobes are marked by characteristics similar to SAD individuals, such as a fear of negative evaluation, humiliation, and embarrassment resulting in social withdrawal (Titze, 2009). Carretero-Dios et al. (2010) compared social phobia psychometric answers to gelotophobia. Their sample consisted of 211 Colombian adults who filled in Spanish versions of the Social Anxiety and Distress Scale (SADS) and the Fear of Negative Evaluation (FNE) scale, as well as the gelotophobia measure GELOPH <15>. They found that, although the SADS and FNE scale correlated highly with GELOPH <15>, there were

differences as not all high scorers on the SADS and FNE scale stated a fear of being laughed at and, as such, social phobia did not fully account for the fear of being laughed at. This was further explored by Platt et al. (2012) who found that gelotophobia and social phobia share three factors in coping with anticipated ridicule: control, withdrawal, and internalising; however, there was divergence from social phobia with a paranoid anticipation to ridicule via laughter and disproportionate reaction to being laughed at, factors which were more unique to gelotophobia.

Edwards et al. (2010) explored relations between gelotophobia and memories of being the target of teasing during childhood and adolescence, and associations between gelotophobia and social and specific fears and anxieties. Their sample consisted of 207 undergraduate students; they found higher gelotophobia scores were associated with greater predisposing levels of being teased about social behaviour and academic excellence but not about family background, appearance, or performance. Overall, their findings indicated gelotophobia was related to distress but not frequency of childhood teasing. They also found gelotophobia was strongly related to three measures of social anxiety and a significant association between gelotophobia and a history of being teased remained, even after controlling for social anxiety. Interestingly, however, gelotophobia only related to experience of specific types of teasing and ridicule in respect of unconventional interpersonal behaviour and academic excellence. A note of caution should be used in interpreting these findings as their sample was university students and, as such, the sample would be more likely to include individuals of academic excellence. It would be interesting to explore whether this would be replicated with a general population sample. They postulated that their findings support Titze's (2009) view of gelotophobia as a syndrome related to but distinct from social phobia, emerging from being the object of ridicule and particularly correlated to anxiety-based social skills deficits and interpersonal awkwardness. Gelotophobia, therefore, appears to be a

specific variant of shame-bound anxiety where an individual perceives themselves as intolerably ridiculous (Titze, 1996). This maladaptive belief that others will perceive them as unusual, ridiculous, or strange in conjunction with the expectation of being ridiculed specifically via laughter distinguishes gelotophobia from social anxiety/social phobia (Ruch & Proyer, 2008). In future, gelotophobia may also prove to be an additional diagnostic criterion for SAD and APD. At present it would seem, however, that more research is needed as it could be that both conditions just share comorbid characteristics of gelotophobia, especially as rampant comorbidity across the DSM-5 and ICD-11 is already a criticism and perceived as an indication of imperfect classification that needs reducing (Clark et al., 2017).

2.6.2 Gelotophobia and Emotionally Unstable Personality Disorder (EUPD)

A recent small study looked to explore a link between biases in social information processing frequently associated with emotionally unstable personality disorder (EUPD), formerly known as borderline personality disorder, and the occurrence of gelotophobia. Although this study based their exploration on what appears to be an assumption, it did return some interesting findings. Results indicated a high prevalence of gelotophobia among EUPD participants with 87% of EUPD participants fulfilling the GELOPH <15> gelotophobic criteria when compared to other clinical and non-clinical reference groups. They found 30% of EUPD participants met the extreme gelotophobe criteria, 37% were pronounced, and 20% had slight gelotophobia. The authors suggested a specific cognitive-affective predisposition in processing of social information, relates to the overreaching expectation of rejection, and offers a causal link to the presence of gelotophobia in EUPD patients. Indeed, the rate of gelotophobia among the reported EUPD patients was far higher than any other previous clinical group (Brück et al., 2018). The study, however, does have some limitations: the sample was small in nature and only consisted of 30 EUPD individuals; 17 of the 30 had other comorbid difficulties which could also offer plausible explanations for a fear of

ridicule, e.g., nine of the 30 had a diagnosis of an eating disorder, thus the role of bodily shame could be a confounding variable (Troop & Redshaw, 2012).

2.6.3 Gelotophobia and Autistic Spectrum Disorder (ASD)

A lack of appreciation for the fundamental social phenomenon of humour has been linked previously to ASD. An initial study examining gelotophobia and higher functioning autistic spectrum disorder (hfASD) found gelotophobia was present at a significantly higher rate (45%) compared to neuro-typical participants (6%) (Samson et al., 2011). Silva et al. (2017) examined both implicit and explicit humour; they found that, at an explicit level, ASD participants were able to appreciate and enjoy humour as much as neuro-typical participants; however, at an implicit level, ASD participants were found to have humour that is content dependent and affected by social content but not for non-social humour. That is, ASD participants were able to process humour as well as the neuro-typical participants when the stimuli processed did not include social cues. The study used animal versus human stimuli to rule out cognitive impairment as a hypothesis. There was no dissociation between implicit and explicit stimuli for animal stimuli, indicating the role of social clues in ASD participants. They suggested a causal chain, whereby early failures of social reciprocity in childhood development for individuals with ASD can lead them to displace their attention, leading to a greater interest in objects or animals which becomes more pronounced and develops atypical reward cues; thus, motivation to attend to social reward cues is affected. This may account for why there is a higher-than-average number of gelotophobes that also have ASD, as their perceived lack of humour could impact on their social interactions and the quality of their social relationships.

As individuals with ASD tend to be perceived to have more atypical mannerisms and difficulties with interpersonal interactions and social norms, and children with ASD are four times more likely to experience bullying, it is unsurprising there is such a high prevalence of

gelotophobia amongst individuals with ASD. At the present time, however, more research into the link between gelotophobia and ASD is needed (Grennan et al., 2018). For example, as the prevalence of comorbid issues tends to be greater in individuals with ASD compared to the neuro-typical population (Lugnegard et al., 2011), yet the interaction between ASD, comorbid issues, and gelotophobia has not been examined and, thus, at present we cannot discern whether any other difficulties are mediating ASD and gelotophobia. For instance, there is a relationship between dyspraxia and ASD (Cassidy et al., 2016). Dyspraxia is associated with motor, social, and communicative deficits and as such body language can be atypical, such as arm movements being more angular in nature. It would be interesting to explore whether this relates to 'Pinocchio syndrome' associated with gelotophobia and originally reported by Titze (1996).

2.6.4 Gelotophobia, Posttraumatic Stress Disorder (PTSD) and Shame

As gelotophobia is postulated to develop through repeated traumatic experiences of being bullied via laughter, the next section will examine where it currently sits within DSM-5 trauma diagnoses with the salient aspects of the relevant diagnosis presented. It is important to further iterate that the DSM-5 is merely a diagnostic guide for psychiatrists and, although from a counselling psychology perspective it is not necessary to work with a diagnosis, the DSM-5 does afford a useful comparison of how gelotophobia relates to already established difficulties.

DSM-5 diagnosis guidance for posttraumatic stress disorder (PTSD) (which does not include children under six years old) is stipulated below in Table 1. To meet the diagnosis for PTSD, an individual would need to meet Criterion A, as well as one or more symptoms from Criterion B, one or more symptoms from Criterion C, two or more symptoms from Criterion D, and two or more symptoms from Criterion E. Also, their difficulties would need to have

been present for a month, bring considerable distress, and not be due to any other medical condition or substance misuse (American Psychiatric Association, 2013).

Table 1

The DSM-5 Diagnosis Guidance for Posttraumatic Stress Disorder

Criteria		
A	Necessitates an individual experiencing exposure to actual or threatened death, serious injury, or sexual violence in either one, or more, of the following ways:	• Direct experience of traumatic event. • Witnessing a traumatic event. • Learning of a traumatic event to a close family member or friend; should the traumatic event be one of actual or threatened death the event must have been violent in nature. • Experiencing repeated exposure to details of traumatic events (this does not include media or social media) but rather relates to front-line workers working with trauma patients, e.g., police, nurses and psychologists.
B	Relates to experiencing at least one of the following symptoms related to the traumatic event:	• Reoccurring, involuntary, and intrusive upsetting memories of the event. • Repeated upsetting dreams related to the traumatic event. • Dissociative reactions such as a flashback where the individual re-experiences the traumatic event. • Strong and persistent distress upon exposure to cues that are either inside or outside of the body that are connected to the traumatic event. • Strong bodily reactions such as increased heart rate in

		relation to triggers, internal and external, of the traumatic event.
C	Involves avoidance of reminders related with the traumatic event, including one of the following:	• Avoidance of thoughts, feelings, or physical sensations that trigger memories of the traumatic event. • Avoidance of people, places, conversations, activities, objects, or situations that trigger memories of the event.
D	Needs two of the following negative changes to thoughts and mood related to the traumatic event:	• Diminished ability to remember aspects of the traumatic event (not related to alcohol, drugs, or head injury). • Persistent, and disproportionate, negative evaluations of yourself, others, and the world. • Elevated self-blame or blame of others regarding the cause or consequence of a traumatic event. • Negative affect that is pervasive. • No longer enjoying activities. • Feeling detached from others. • The inability to experience positive emotions.
E	Requires two of the following changes in arousal:	• Irritable or aggressive behaviour. • Impulsive or self-destructive behaviour. • Hypervigilance. • Heightened startle response. • Difficulty concentrating. • Problems sleeping.

Gelotophobia initially, therefore, does not appear to relate to DSM-5 criteria for PTSD as presented above, as it does not relate to any actual, or threat of, death or sexual violence, and the same reasoning also rules out an acute stress disorder (American Psychiatric Association, 2013). One of the salient factors believed to be involved in the development of gelotophobia, however, is the experience of being bullied, specifically relating to being humiliated via laughing. Bullying is deemed a subtype of aggressive behaviour where an individual has repeated pejorative interpersonal experiences with a perceived imbalance of power (Salmivalli, 2010). As with gelotophobia, bullying also does not fulfil Criterion A of the DSM-5 for PTSD. A plethora of other diagnoses have been suggested for difficulties resulting from bullying, such as adjustment disorder, depressive disorder, anxiety, or just distress not related to any specific psychiatric disorder. This has been disputed, however, and it has been argued that a diagnosis of PTSD is warranted for bullying despite it not involving actual, or threat of, death or sexual violence (Rosen et al., 2008). This position postulates that repeated and systematic experiences of being bullied are equivalent to the distress associated with PTSD (Matthiesen & Einarsen, 2004; Mikkelsen & Einarsen, 2002; Tehrani, 2004). This is in keeping with the position taken by some therapeutic-based treatments for trauma such as eye movement desensitisation and reprocessing (EMDR). In this model, repeated adverse life experiences such as non-life-threatening injuries, emotional abuse, death of a loved one, bullying or harassment, and loss of significant relationships are referred to as ‘small t’ traumas; repeated experiences leading to the same symptomology are referred to as ‘Big T’ traumas, and Big T traumas are in keeping with current PTSD definitions (Shapiro, 1995; Shapiro & Forrest, 1997). Moreover, qualitative explorations of bullying have suggested the long-term impact of bullying is in keeping with individuals that have experience of sexual abuse in childhood (Carlisle & Rofes, 2007). Meta-analysis of research examining PTSD resulting from bullying at school, and work, found bullying cross-sectionally associated with

PTSD, and most victims of bullying within the research reported PTSD-like symptomology. Researchers gave a caveat to their findings, however, due to limited longitudinal findings and research lacking clinical interviews, meaning they could not categorically establish a causal link between PTSD and bullying (Nielsen et al., 2015).

The links between bullying and PTSD have great significance for gelotophobia given its links to bullying; as such, trauma offers another possible explanation for gelotophobes' presentation. To date there has been no research relating to gelotophobia and trauma and, therefore, it cannot be ruled out that what individuals are experiencing is trauma-based difficulty, with laughter and smiling acting as triggers. At present the fact gelotophobia is found amongst individuals with ASD, EUPD and social anxiety, but also that it is found separately, is used as an indication of gelotophobia being a separate difficulty. It could be that trauma is mediating gelotophobia and other diagnoses, and what is being witnessed is the presence of trauma across these populations with a specific trigger of laughter. If this were the case it would lend weight to gelotophobia being a specific trauma-related trait of other difficulties rather than a separate difficulty of its own.

Trauma has also been related to shame and guilt with individuals feeling shame and guilt following traumatic experiences (Gilbert, 2003). This is pertinent to gelotophobia as it has been referred to as a shame-based anxiety, and research has found a strong positive correlation between gelotophobia and shame (Boda-Ujlaky & Séra, 2016). A study that incorporated participants from the UK and Germany used the GELOPH <46> to establish the presence of gelotophobia and a measure that examined five parameters during a typical week of emotions: latency, maximal intensity, duration, expression, and intensity. They found that shame was experienced more intensely by gelotophobes when compared to non-gelotophobes, and when shame was elicited no other negative emotion was identified (Platt & Ruch, 2010). Proyer et al. (2010), using Test of Self-Conscious Affect (TOSCA-3) and

PhoPhiKat-45, showed that gelotophobia was related to shame-proneness and externalised shameful situations, and gelotophobes had a more pronounced sense of guilt compared to gelotophiles or katagelasticists. Boda-Ujlaky & Séra (2016) further investigated shame and gelotophobia, citing Scheff (2003) when stating that shame can be ambiguous, overlapping with other emotions and occurring on a spectrum consisting of embarrassment on one side and humiliation adjacent. They examined the relationship between gelotophobia, shame, and humiliation by using the self-report measures of PhoPhiKat-45, TOSCA-3, and Humiliation Inventory. Their results indicated that gelotophobia is related to humiliation, however only if humiliation incorporates derision.

Shame is postulated to be a self-focused social threat system which has an evolutionary basis (Gilbert, 2003), whereby an individual being accepted into a social group was a protective factor for survival and affected their evolutionary fitness within a social hierarchy. A social threat in contemporary complex interpersonal relationships is socially constructed and refers to the possibility of being rejected by family, caregivers, partners, friends, or colleagues. These social threats can precipitate shame from either external or internal threats. External threats refer to concerns about what other people think about an individual and about the perception other people have of the individual; thus, an external threat relates to concerns of others looking to distance themselves from an individual or not valuing them. Internal threats are driven by self-judgements, which can lead to individuals being highly self-critical and causing an array of emotions to be experienced such as contempt, disgust, anger, and humiliation. Individuals who have experienced trauma can experience the fear of other people incorporating shame-related external and internal threats (Gilbert & Procter, 2006). In dealing with these perceived threats resulting from trauma, it is suggested there are three salient defences: attack – where an individual makes themselves rude, aggressive, or unlikeable/unfriendly; submit – to always submit to others' demands

even when unreasonable; hide – individuals' distance themselves from others to the point of not having any friends and keep a persona of being aloof (Lee & James, 2013). Two of the defences suggested for shame-related threats experienced after trauma are in keeping with behaviours observed with gelotophobes in terms of being socially isolated and presenting in an aloof manner. Thus, given the link between gelotophobia and shame, trauma is once more indicated as a possible parsimonious explanation for gelotophobes' difficulties and therefore needs further examination.

In summary, at the present time the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (American Psychiatric Association, 2013) is used as a guide for psychiatrists to diagnose mental health difficulties. Research has indicated gelotophobia is found amongst ASD, SAD, and EUPD individuals but also exists separately. The fact gelotophobia is also found outside of these diagnoses gives support to it being a specific difficulty. However, given there seems to be a high prevalence of gelotophobia across different difficulties, it may be gelotophobia is a previously unrecognised trait across difficulties rather than a separate, new difficulty. There is a real paucity of research on gelotophobia in relation to trauma; given gelotophobia is ascertained to be a trauma-based difficulty, this seems a much-needed area of research to understand fully how gelotophobia relates to pre-existing recognised difficulties.

Chapter 3 Literature Review Part 2: Counselling Psychology and Gelotophobia

3.1 Counselling Psychology

The foundations of counselling psychology in the United Kingdom are built upon American humanistic values (Orlans & Van Scoyoc, 2008) of the client-centred approach outlined by Carl Rogers (1951). Rogers, building upon Abraham Maslow's hierarchy of needs model (1943), postulated that there are three core conditions necessary for therapeutic change: 1) empathy – gaining a sense of the client's perspective whilst bracketing off one's own experiences and perceptions and, as such, a psychologist should endeavour to understand the client's feelings and meanings and mirror the client's mood and terminology; 2) congruence – the psychologist should be transparent and genuine and strive to be their self in the here and now; 3) unconditional positive regard – the psychologist should act in a consistent, non-judgemental fashion with warmth.

The Division of Counselling Psychology (DCoP) of the British Psychological Society (BPS) standards for counselling psychology state its goal is to reduce psychological distress and encourage well-being by addressing an individual's subjective experience and interactions with physical, social, cultural, and spiritual factors. Although counselling psychology incorporates and advocates for a pluralistic approach to therapy, it considers the salient vehicle to change to be the therapeutic relationship (Nielsen & Nicholas, 2016) and puts emphasis on the here and now rather than addressing medical model diagnostic criteria (Orlans & Van Scoyoc, 2008). As said, contemporary counselling psychology operates from a pluralistic stance (Cooper & McLeod, 2012), incorporating an array of psychological models. There has been much discourse regarding where the person-centred approach sits within contemporary counselling psychology; however, a set of salient principles emerged from Sanders (2000) to guide its use within integrative practice: 1) trust in the client's ability to maximise their own potential; 2) incorporate Rogers' (1961) core conditions of therapy, regardless of model being used; 3) hold a non-directive stance towards client content, i.e., the

client must be free to determine what topics to work on (Gillion, 2007). As such, even when taking a pluralistic approach to therapy with clients, Rogers' core conditions of therapy should be ever present in the therapeutic relationship.

The therapeutic relationship is considered salient to the success of psychotherapy, and counselling psychology, regardless of what psychological model is used (e.g., Hafkenscheid, 2009; Klerman et al., 1984; Luborsky, 1994; Martin, 2010; Strawbridge et al., 2009). Recent meta-analysis undertaken by Flückiger et al. (2018) examined 295 independent studies spanning 30,000 patients (published between 1978 and 2017) for face-to-face and Internet-based psychotherapy. They found a robust positive correlation between the therapeutic relationship and outcome. Their findings support previous research that the therapeutic relationship best predicts outcome, across assessor perspectives, treatment approaches, patient characteristics, and countries. There has been some criticism of the research supporting the therapeutic relationship in relation to outcome; however, the research tends to rely on correlations and, as such, the therapeutic relationship may be merely reflecting the positive trend of the therapeutic outcome rather than being the instigating factor (Norcross, 2011).

The therapeutic relationship can be defined as the bidirectional feelings and attitudes that the therapist and client share and the method of how these are expressed (Gelso & Carter, 1994; Norcross & Lambert, 2018). The fundamental factors necessary for a successful therapeutic relationship are Rogers' (1961) core conditions of therapy incorporating warmth, empathy, and respect. The salient factor related to a positive engagement in therapy is that of empathy, which necessitates the therapist's ability to enter the client's cognitive world (Bohart et al., 2002; Gilbert & Leahy, 2007). The presence of gelotophobia, therefore, could have a significant impact on the success of therapy, as metacommunication issues can fracture the therapeutic relationship.

3.2 Gelotophobia and Challenge for Therapeutic Practice

Gelotophobia is still overlooked in clinical practice despite evidence of its existence found across 73 countries, in clinical and non-clinical populations (Proyer et al., 2009). As such, this can lead not only to miscommunication within the therapeutic relationship but also to individuals being misdiagnosed (Platt et al., 2016). Misgivings regarding the presence of gelotophobic traits within clinical populations largely seem to be based on clinician-subjective experience (Platt, 2013). In the psychiatric discipline, an individual's conditions are often seen through the lens of the DSM and, as gelotophobia is not accounted for within the DSM, it is neither incorporated into diagnoses nor attributed to other conditions (Platt et al., 2016).

The presence of gelotophobia not only has implications for an individual's medical diagnosis and treatment but also for the success of therapy. It is acknowledged that, should a full psychological formulation take place, it could/should highlight the heightened fear of being laughed at; however, should a psychologist offer a reassuring smile in an initial session, it could be alienating, and anxiety provoking, and lead to the patient disengaging from therapy, which is one of reasons suspected as to why so many therapists report not encountering gelotophobia (Platt et al., 2016). There is a high dropout rate in the first session in psychotherapies: A study of 2,551 cases drawn from 17 community mental health facilities found 40.8% of clients did not return after the first session (Sue et al., 1976) and meta-analysis of psychotherapy dropouts found a mean dropout rate of 46.86% (Wierzbicki & Pekarik, 1993). Multilevel investigation of the antecedents of psychotherapeutic dropout found that a change in client self-esteem allied with therapeutic relationship issues were salient factors. In conjunction with this, a shared characteristic of first session dropouts was that the therapist undertook fewer clarifying experiences (Kegel & Flückiger, 2014). This is in keeping then with the assertion by Platt et al. (2016) that gelotophobes drop out of therapy

early due to the therapeutic relationship being fractured by metacommunication issues. In respect of gelotophobia, therefore, the ability of a therapist to recognise the impact of smiles and laughter on a client would be intrinsic to the client feeling respected, not judged, and to the formation of a genuine, warm therapeutic relationship (Gilbert & Leahy, 2007).

Although counselling psychology training focuses upon the emotional process and encourages therapists to be reflective in respect of their emotional experiences, courses have limited training on metacommunication. What training there is focuses on identifying, and exploring, incongruent presentations; however, there is no training on recognising facial affect (Hutchison & Gerstein, 2017). Despite counselling psychology training not explicitly attending to facial expressions, Rogers' ever present core condition of therapy, empathy, may afford greater detection of facial affect. An association between the ability to recognise facial affect and empathy has been found across numerous studies, whereby higher levels of empathy correlated with greater facial affect recognition ability (Carr & Lutjemeier, 2005). Besel & Yuille (2010) investigated individual differences in empathy and emotion recognition. They operationalised emotional recognition accuracy via Ekman & Friesen's (1976) Pictures of Facial Affect, depicting six emotions of anger, disgust, fear, happiness, sadness, and surprise, and measured empathy with the Empathy Quotient (EQ) and the empathic concern factor of the Interpersonal Reactivity Index (IRI). They found an association between aspects of empathy and empathic concern, in relation to the ability to recognise facial expressions. These findings are in keeping with other research which has found an inverse relationship between empathy and facial recognition in violent offenders (Quintero et al., 2017).

The second part of the literature review has seen so far, the importance of the core conditions of therapy and the therapeutic relationship and outlined the potential for gelotophobia to fracture the therapeutic relationship via metacommunication difficulties. It

has also highlighted the relationship between empathy levels and the ability to identify facial affect. The next part of the literature review will explore the development of empathy and whether training in counselling skills can impact on empathy levels.

3.3 Empathy and Its Development

A plethora of research regarding the concept of empathy has been undertaken across psychology, medicine, neuroscience, and ethology, amongst others, with conflicting definitions and discord regarding its components (Gery et al., 2009). There is consensus within empathy research, however, relating to empathy being multifaceted in nature, encompassing subjective experience, perspective taking and affective cues invoking emotional states, be it for others or self-orientated (Davis, 1983; Decety & Jackson, 2004; Gery et al., 2009; Hoffman, 1984). The two aspects of empathy this study will concern itself with are that of affective and cognitive empathy. Affective empathy is associated with feeling the emotion of another, but with compassion (Besel & Yuille, 2010); this is postulated to be an automated process where someone catches feelings from another, in this sense emotions can be seen as contagious. Cognitive empathy relates to the ability to imaginatively understand another's feelings, thoughts, and actions but without having to feel the emotion of the other; in this sense understanding another's emotions is likened to mindreading. In this situation, for instance, an individual can see that someone else is feeling sad, but it does not affect their own emotion, i.e., it does not make them feel sad too (Heyes, 2018). These factors can operate independently (Baron-Cohen & Wheelwright, 2004) and differentially relate to facial expression recognition (Besel & Yuille, 2010), although they can also operate together as posited in the dual action model of empathy (Heyes, 2018). It is noted, however, that this dualistic approach has been criticised, positing that affective and cognitive aspects of trait empathy are interactional to the point that one aspect invokes another and, as such, cannot be measured separately (Clark, 2007).

It is suggested that we are born with affective empathy which affords the ability to 'feel' others' distress, but this empathy then develops in complexity in infancy through a process of reciprocity with its caregiver via crying, facial recognition, and vocalisations. As such, there is a complex interplay between genetics and environment in the development of empathy (Bazelgette, 2017). Newborn babies exposed to the sound of another infant crying have been found to display distress. In examining this phenomenon, studies compared an infant crying to several loud synthetic noises, and silence, yet the newborn babies continued to respond more intensely to other newborns' cries (Martin & Clark, 1982; Sagi & Hoffman, 1976; Simner, 1971). The emotional contagion displayed in these studies is believed to be an early form of affective empathy (Zahn-Waxler & Radke-Yarrow, 1990).

In examining the genetic and environmental roles in the development of empathy, there have been a number of twin studies undertaken. Zahn-Waxler et al. (1992) examined the responses of young monozygotic and dizygotic twins to simulated distress with an expectancy to find a stronger relationship in empathy within the monozygotic group from which researchers inferred the level of heredity in empathy. At 14-months-old, there were significant heritability factors relating to empathic responses, including prosocial behaviour and empathic concern. A further twin study was undertaken with a larger sample examining the roles of genetics and shared environment on the development of empathy. They found that, by the age of 24 and 36 months, heritability correlated up to a half of the variation in children's empathy (Knafo et al., 2008). These studies attempted to demonstrate the importance of genetic influences interacting with environmental factors. There has been some criticism of these studies, however, in respect of the behavioural measures used as they conflate emotional understanding. As such, it is possible that genetically inherited empathy is not just a matching mechanism but rather a process involved in social motivation, emotion identification, and emotion regulation (Coll et al., 2017; Decety et al., 2017). Although some

concerns have been raised regarding some of the methods examining the genetic aspect of empathy, there is a body of evidence supporting the role of genetics in developing individual differences in empathy, albeit with the caveat of the salient interplay with the environment (Flom & Saudino, 2016; Uzefovsky et al., 2015; Warrier et al., 2018).

Empathy, however, is not merely acquired through genetics; rather, it is also learnt through early life experience. In respect of affective empathy, the learned matching hypothesis suggests that its development occurs from an emotion felt inwardly being associated with an observed emotion and, as such, this requires interpersonal interaction, i.e., affective empathy development cannot just occur through individual self-stimulation as we tend not to see our own facial expressions or body language (Heyes, 2017; Heyes & Ray, 2000; Ray & Heyes, 2011).

It is believed that mirror neurons facilitate empathy and affect mirroring (Rizzolatti & Caruana, 2017). Mirror neurons fire when an action is observed and imposes the observed action onto the observer's motor system, affording shared experience and insight to intentions, motivations, and emotional experience (Kaplan & Iacoboni, 2006). This process has been supported by numerous functional magnetic resonance imaging (*f*MRI) studies (Grezes et al., 2003; Iacoboni et al., 1999; Molnar-Szakacs et al., 2005). As such, the same neural structures and emotions can become active within you when detected in others (Iacoboni, 2009). The process of identifying others' emotions, known as social cognition, is largely attributed to recognising and understanding specific facial configurations (Adolphs, 2002). This is believed to be operationalised, however, via mirror neurons (Enticott et al., 2008).

An *f*MRI study focusing on disgust observed the same emotion expressed by the facial expression of someone else activated the same neural structure and anterior insula at

the same location, indicating that witnessing third person expressions can invoke a perceived affective state (Wicker et al., 2003). This is the concept of 'mirroring' defined by activation of the sensorimotor network precipitated by an observed action (Ricciardi et al., 2017). Mirroring, in general, is suggested to occur via the sensorimotor network incorporating activation of the premotor face area, the pars opercularis of the inferior frontal gyrus, the superior temporal sulcus, the insula, and the amygdala (Carr et al., 2003), although it is also suggested that there are different areas of the brain involved in different emotions. Meta-analysis found that basic emotions operate by different neural systems, albeit with some overlap. Happy and fearful faces relate to the amygdala bilaterally, sad faces relate to the right amygdala only, disgust seems to activate the anterior insula and fear seems to activate the amygdala (Ricciardi et al., 2017). It should be noted that there are still some issues with research in this field as the evidence is largely reliant on correlations of activation of the brain in overlapping areas, thus not ruling out other factors or regions (Fusar-Poli et al., 2009; Ricciardi et al., 2017). It does, however, lend support to the notion of individuals being able to discern the affective state of another via facial expressions.

Learned matching theory is postulated to be consistent in this approach, albeit with the acknowledgement of interplay of innate characteristics. Learned matching theory suggests early life experience and learning have an entwined interplay between genetic and environmental factors in developing empathy (Heyes, 2018). Moreover, as yet there is no definitive evidence that individual differences in the matching aspects of empathy are innate (Flom & Saudino, 2017); rather, there is evidence for a genetic role in elucidating mechanisms favouring the development of emotional matching mechanisms (Coll et al., 2017).

The animal model has provided evidence for learned matching theory with evidence of associated learning and emotional contagion found across all animal species (Heyes, 2012)

and interspecies learning too, for example when a dog picks up on human emotions (Heyes, 2017). The role of affect mirroring in humans, highlighted by an individual's deficit in emotional identification, correlates with being raised by a caregiver experiencing depression, as caregivers with depression tend to have a paucity of affect mirroring (Laurent & Ablow, 2017). Learned matching theory then suggests that empathy develops through associative learning, which develops mirror properties, both motoric and somatic, within the brain through relating direct experience of emotion, self-stimulation, and synchronous emotion (Heyes and Bird, 2007).

Previous research has found early life experience is a salient factor in the development of empathy. However, research in adults examining the role of ageing on empathy is mixed, with evidence indicating: no change in cognitive empathy across age in adults (Keightley et al., 2006; MacPherson et al., 2002; Phillips et al., 2002); older adults displaying greater cognitive empathy than younger (Bailey et al., 2008; Isaacowitz & Stanley, 2011); and the reverse has also been reported, younger adults displaying greater cognitive empathy than older (Keightley et al., 2006). Hühnel et al. (2014) found no depreciation of affective empathy in older age, although they did find a decrease in cognitive empathy responding to facial expressions portraying happiness, anger, sadness, and disgust, but there was a decrease in cognitive empathy measured by accuracy for happiness and sadness. Empathy has also been suggested to be multidirectional and context dependent. Wieck & Kunzmann (2015) found older adult participants reported greater affective empathy than younger participants, but younger adults had higher cognitive empathy when assessing the emotions. Other researchers have suggested there is no reason to believe cognitive and affective empathy may be differentially affected by ageing (Khanjani et al., 2017). This area appears to need more research to gain a clearer understanding of the complex nuances of

ageing and empathy. At present, however, it appears getting older is not enough on its own to develop greater empathy in adult individuals.

3.4 Relationship Between Empathy Development and Counselling Skills

Paying close attention to another individual and listening are precursors to cognitive and affective empathy (Anme et al., 2013). Empathy in counselling psychology has been defined as the ability to experience and understand the feelings of a client and is related to unconditional positive regard, acceptance, being non-judgmental and active listening (Horvath & Bedi, 2002). Similarly, empathy in a wider therapeutic setting has been defined as being motivated to empathise with another, being able to identify others' emotional difficulties, understanding their perspective, and being able to reflect this understanding back to the patient (Ferri et al., 2019). A basic counselling skill that facilitates this is active listening, which is listening with purpose and attending to the patient's communication, so they know they have been heard. In doing this, counsellors also incorporate reflecting, which is the action of trying to understand how the patient perceives their world by taking their frame of reference, repeating their experience back to them, and paraphrasing a spoken action that conveys clients' salient thoughts and feelings (Culley & Bond, 2011).

Several studies have examined the development of empathy and found a link between counselling skills and empathy development. It has been suggested that the process of counselling not only changes the brain of the client but also the therapist (Ivey et al., 2010). Neuroscience research investigating empathy using fMRI scans showed evidence of correlations between learning counselling skills and increased empathy. It is suggested that listening from an empathic stance impacts on affective and cognitive areas of the brain (Ivey & Daniels, 2016). When active listening is viewed through an fMRI scan, it lights up the brain, with evidence of it impacting on the brain to the point it increases grey matter (Eres et al., 2015). Kawamichi et al. (2014) undertook an fMRI study that found neural activation in

the ventral striatum was enhanced by undertaking active listening, which suggested a reward process reinforcing its actions. It is thought that there is a physiological linkage between client and counsellor via mirror neurons which is responsible for the changes in the brain; however, the methods of these studies have been questioned with ecological validity difficulties (Coutinho et al., 2014).

DePue and Lambie (2014) examined student counsellors' levels of affective empathy before and after practicum experience, a minimum of 100 hours, and found an increase in empathy scores. They suggested accurate reflection of a client's frame of reference and feelings is related to the ability to be empathic, and the increase in affective empathy related to learning to be emotionally present with the client. This, they suggested, has implications for empathy development through training as it develops through using counselling skills in clinical practice. Lyons & Hazier (2002) also found an increase in affective and cognitive empathy when examining counselling students' empathy levels in the first and second year of training. They believed originally that empathy development would correlate to students' cognitive development; however, they found no evidence of a relationship between increased empathy and cognitive development and, as such, suggested the increase in empathy was precipitated by counselling training. A criticism of this interpretation, however, is that they did not define specifically what counselling skills they believed to be increasing empathy.

In medicine, the need for training to increase empathy was precipitated by research that found empathy levels decreased in medical students as they transverse the years in medical school (Hojat et al., 2009; Wolf et al., 1989). Following this, there have been numerous studies undertaken looking at developing medical students' empathy levels by incorporating Rogerian person-centred counselling skills (Batt-Rawden et al., 2013). Cutcliffe and Cassedy (1999) undertook a small study which examined nurses' empathy levels before and after a counselling skills course and found empathy levels increased

following learning counselling skills and the ability to convey empathy. This study suffered from a small sample size and, as such, caution should be taken in interpreting its findings. Moreno-Poyato et al. (2017) also investigated an intervention with nurses that consisted of providing them with the evidence of best practice related to building therapeutic relationships and introducing reflective practice groups, which led to an increase in empathy.

The process of empathy training has incorporated several factors such as focusing on teaching medical students to understand patients' concerns and feelings by not just focusing on verbal presentation of communication but also incorporating metacommunication and Rogerian counselling skills, such as empathic responses and being present in the moment, into their practice (Ruiz-Moral et al., 2017) and treating patients on an individual level, in a person-centred way (Archer & Meyer, 2018). Cognitive empathy appears to be more susceptible to development (Platt & Keller, 1994), whereas affective empathy shows more limited development (Epstein & Street, 2011). Despite the impact on affective empathy being more limited, overall, the findings for cognitive and affective empathy training indicate that empathy levels can be taught by paying attention to nonverbal cues and having interpersonal interactions in a relational, person-centred manner (Ruiz-Moral et al., 2017; Thompson et al., 2010). Meta-analysis examining the efficacy of empathy training incorporating counselling skills across professions examined 18 randomised controlled trials incorporating 1800 participants and found that, overall, empathy training tends to be effective (Teding van Berkhout & Malouff, 2016). It should be noted, however, that this study did not distinguish between cognitive and affective empathy and, as such, it is not possible to differentiate whether either of these aspects had a greater effect than the other.

Interestingly, when relating to another individual over something that is difficult or distressing, empathy can breakdown. Schumann et al. (2014) found that when participants believed they had control over their empathy and were motivated to develop their empathy,

they displayed greater levels of empathy in challenging contexts. This has implications for counselling psychology as in its foundation is an implicit assumption that empathy is a personal construct. Moreover, counselling psychologists are motivated to keep an empathic stance, even in difficult circumstances, due to empathy being a core condition of therapy and the therapeutic relationship being the greatest predictor of a positive outcome. Thus, this becomes self-fulfilling, where counselling psychologists who are motivated to uphold counselling psychology's core conditions, which incorporate empathy, and working from a person-centred stance, are more likely to have increased empathy.

A further factor which may impact on counselling psychologists developing empathy further was investigated by Daw and Joseph (2009). They examined the relationship between psychological mindedness and desirable therapist attributes. They found psychological mindedness is related to therapist self-understanding, clinician empathy, and therapeutic alliance. Psychological mindedness was also negatively related with self-understanding recognition scores, which indicates positive therapist attributes are related to psychological mindedness. As such, reflective practice and personal development could increase cognitive empathy. In counselling psychology training, a salient focus is put on personal development. In the process of training, individuals undertake a personal development module spanning three academic years and are also expected to undertake 40 hours of personal therapy, as well as operating as reflective practitioners which includes keeping ongoing process notes to reflect on one's own feelings and actions. It should be noted, however, that clinical psychology also operates from a reflective practice stance but does not require the same level of personal development via therapy (Fisher et al., 2015),

3.5 The Therapeutic Relationship, Metacommunication and Gelotophobia

In the therapeutic setting, the accurate recognition of a person's facial expressions is advantageous as emotional recognition is incorporated in emotional regulation and

interpersonal communication. Hutchison and Gerstein (2017) stated that ‘accurately inferring a person’s internal feelings through external facial expressions may change the nature of counsellors’ interpretations, evaluations of client behaviours or how they respond to clients’ outbursts (p. 2)’. In counselling psychology, and other forms of therapeutic practice, this aspect of communication falls under the term metacommunication.

The concept of metacommunication, defined as communication about communication, was originally introduced by Bateson (1951), who suggested communication is facilitated across different levels of abstraction. The concept derived from the animal model, within ecology, via observations of play amongst animals, which led to the theory that there was constant motive regarding metacommunication which constrained the frame of how other animals perceived behaviour and, as such, restricted their responses appropriately, e.g., when animals play fight metacommunication relates ‘we are playing now’ (Bateson, 1976). Panksepp and Burgdorf (2003) studied laughter in rats, suggesting it had an evolutionary function to encourage play amongst young animals with the adage of reassuring others their actions were not hostile. This is also seen in humans, where playful behaviour bracketed by laughter encourages social bonding and social skills.

The concept of metacommunication in humans was developed further by Rossiter (1974) who divided it into two levels. One level is anything that contextualises communication which incorporates salient aspects of nonverbal communication such as voice intensity, facial expression, and body gestures. The dual nature of communication means these aspects can support or contradict the verbal dialogue of others. The other level of metacommunication relates to verbal comments about the communication, when there is a need to further appraise the communication of another (Baltzersen, 2013). Metacommunication in humans, therefore, provides the same frame of others’ motives, as the

message ‘we are playing now’ is often implicit and thus, sometimes can lead to misunderstandings (Baltzersen, 2013), which is salient for gelotophobes.

Human consciousness is believed to have evolved from reflectiveness and, as such, individuals have a degree of autonomy over communication with a possible disparity between what one communicates and what one thinks and feels. This becomes more difficult, however, when emotions are present, as our true belief or meaning can leak out via metacommunication (Motschnig & Nykl, 2014; Rennie, 1998).

In counselling psychology, metacommunication has a salient place; its foundations are based in Rogers’ person-centred approach (Strawbridge et al., 2009). Within this approach, difficulties can arise when there is incongruence between an individual’s self-representation and self-presence. A therapist can empathically seek to understand a client’s presentation by noticing their body language, tone of voice, and gestures and, in turn, reflect this back to facilitate further self-understanding and agency within the client (Rennie, 1998). The therapeutic process, however, is not just a one-way process as clients are also trying to make sense of a therapist’s metacommunication. Whilst a good therapist would seek to minimise any misunderstandings by using counselling skills such as paraphrasing, reflecting, and parroting, as well as being reflective and transparent in their own actions (McLeod, 2007), miscommunications can still occur when decoding communication, as it is only an approximation of the encoder’s intention.

Traditionally, further exploration in the appraisal of metacommunication has only been in the direction of the therapist to the client, such as classical psychoanalytical transference. Whilst countertransference is accounted for, it is still subjective in nature and tends to be held within the confines of clinical supervision. The early person-centred approach that had congruence of communication at the centre of the paradigm tended to be one way within its reflectivity. To quote Carl Rogers (1961), ‘the greater the congruence of

experience, awareness and communication on the part of one individual, the more the ensuring relationship will involve a tendency toward reciprocal communication with a quality of increasing congruence; a tendency towards more mutually accurate understanding of the communications; improved psychological adjustment and functioning in both parties; mutual satisfaction in the relationship' (p. 365).

Humour occurs frequently in therapy, albeit a lot of therapists are not conscious of its occurrence: one study has found on average laughter occurs every three minutes in therapy, with clients more likely to laugh than therapists (Marci et al., 2004). Humour can still, however, have a dual function within the therapeutic setting, conveying negative messages as well as pro social (Norcross, 2011). Contemporary person-centred therapists encourage transparency and congruency bilaterally and seek to facilitate checking between the intended and received communications (Motschnig & Nykl, 2014; Rennie, 1998). In counselling psychology, despite the salience of incongruent presentations, training in metacommunication does not go beyond noticing incongruence within the client's presentation; as such, there is no specific training in recognising facial affect (Hutchison & Gerstein, 2017). For gelotophobes, metacommunication takes on greater importance, as their relational frame to humour and laughter, even a reassuring smile, would most likely be received as ridicule or scorn. Therefore, the link between empathy and ability to correctly identify facial affect (Bese &Yuille, 2010), would be of great importance for counselling psychologists working with gelotophobes.

3.6 Facial Expressions and the Communication of Emotion

The ability to communicate, both the encoding and decoding of facial expressions, is of salient importance within social interactions (Nachson, 1995). Facial expressions communicate an emotional state to others via an encoding face and decoding brain, which allows one to infer an emotional state and respond accordingly (Smith et al., 2005).

Typically, this is arranged into seven universal expressions of emotion, fear, joy, contempt, sadness, disgust, anger, and surprise, and has been observed cross-culturally (Ekman, 1973; Ekman 1999; Ekman & Friesen, 1986). Darwin (1872) was the first to examine facial expressions of humans and animals. He postulated that the expressions were innate across cultures and, as such, had evolved to communicate an inner emotional state to others. There have been over 30 studies that have found support for universal recognition of emotion in the face (Matsumoto, 2001), as well as a further 75 studies that have found the same facial expressions displayed when emotions are triggered spontaneously (Matsumoto et al., 2008). As such, there is strong evidence for the universal facial expressions of seven emotions: anger, contempt, disgust, fear, joy, sadness, and surprise (Matsumoto, 2011).

3.6.1 Cultural Differences Within Facial Recognition of Emotion

There have, however, been critics of the facial recognition of universal emotions with the belief that the methodology used in studies is impacting on the findings and, rather than innate emotions occurring cross-culturally, there is in fact a more subtle model of emotion perception which is impacted on by culture and language, which increases variation (Russell, 1994). Gendron et al. (2014) compared American and the remote Himba culture participants by asking them to compile pictures by emotion type; the Himba participants did not show the normal universal emotional grouping, although when clues to emotional context were presented, the findings were closer to the universal groupings, albeit some variance persisted. A study by Jack et al. (2012) also found discrepancies when examining mental representations of emotion. Westerners represented each of the seven basic emotions with separate facial movements, whereas Easterners did not. Easterners also used a dynamic eye activity in displaying emotional intensity. These differences between cultures have been likened to a nonverbal ‘accent’, where some cultures exhibit subtle differences; moreover, it is suggested that static shots of emotion do not elicit the same cultural differences and these

tend to be exhibited through moving imagery (Marsh et al., 2003). Meta-analysis investigated emotion recognition within and across cultures and found emotions were recognised across cultures, although the accuracy levels were higher when the encoder and decoder were from the same national, ethnic, or regional group, suggesting an in-group advantage which is mediated by exposure to the respective culture (Elfenbein & Ambady, 2002).

At the present time, however, although there is evidence of cross-cultural differences in basic emotions, a larger body of research encompassing neurophysiological, computational, and behavioural approaches suggests basic emotions can be reliably recognised (Calvo & Nummenmaa, 2015). For example, support for an individual's ability to accurately recognise facial expressions of emotion across cultures has also been found by researchers using the Japanese and Caucasian Facial Expressions of Emotion (JACFEE) in photographs in numerous countries including China, Hungary, Japan, Poland, Sumatra, the United States, and Vietnam. These results have found significant high accuracies in respect of identifying anger, disgust, happiness, and sadness. Contempt, however, has tended to be lower in accuracy, albeit still significant, and fear and surprise have been mixed on occasion (Huang et al., 2009). Moreover, a review by Ekman (2016) carried out amongst 248 researchers that had published eight or more times across five years on the subject of emotion found, however, that (88%) believed there was compelling evidence for universals in any aspect of emotion and (80%) supported the view that there are universal signals by either face or voice across cultures. There was less agreement regarding whether there is evidence of universal factors regarding what triggers emotion (66%), physiology (51%) or appraisal mechanisms (44%). When asked which emotional terms were empirically substantiated, the five emotions of anger, fear, disgust, sadness, and happiness had a significantly high agreement. Shame, surprise, and embarrassment were met with less approval (40–50%), however, and various others had considerably less agreement: guilt (37%), contempt (34%),

love (32%), awe (31%), pain (28%), envy (28%), compassion (20%), pride (9%), and gratitude (6%). The results overall, however, do lend weight to the fact that at present there is a consensus of support regarding universality of some facial expressions.

3.6.2 Autonomy of Facial Expressions

Facial expressions, however, cannot be considered merely innate expressions of emotion, as individuals have autonomy over expression and, as such, their expressions can be faked (Ekman et al., 1981). In assessing facial expressions there are specific facial configurations related to different emotions. For example, the emotion of joy tends to be accompanied by a facial configuration called the Duchenne display (Ekman et al., 1990). According to Platt et al. (2013), 'the Duchenne display refers to the joint and symmetric contraction of the zygomatic major and orbicularis oculi muscles (pulling the lip corners back and upwards and raising the cheeks and compression of the eyelids causing eye wrinkles, respectively)' (p. 776). Non-Duchenne smiles, however, do not include the activation of orbicularis oculi and tend to serve a social function such as concealment of a negative emotion (Surakka & Hietanen, 1998), whereas a contempt smile incorporates unilateral action of the buccinators muscle (Ruch et al., 2013). This is of relevance to gelotophobes, as they tend to respond to expressions of joy with higher incidents of contempt displays and they express less joy in response to expressions of joy (Hofmann et al., 2015).

3.6.3 Facial Expressions of Emotion and Therapists

A previous study that investigated whether there was a difference between counselling trainees' and undergraduates' abilities to recognise facially expressed emotions found there was no significant difference between the counselling trainees and the general undergraduates and no difference in gender. The study used a mix of trainees from different backgrounds and education status, which included master's level clinical psychology trainees, counselling, counselling, and psychology (dual degree option), and doctorate level

counselling psychology trainees. The 108 participants were presented with Japanese and Caucasian Facial Expression of Emotion (JACFEE; Matsumoto & Ekman, 1988) which comprises 56 photos of American and Japanese individuals displaying anger, contempt, disgust, fear, happiness, sadness, and surprise (Hutchison & Gerstein, 2017). The therapeutic experience of the trainees in question that took part in the study was, however, limited. It would appear some trainees in the study had no therapeutic experience at all, and for others, although they may have had a trainee placement, it is not known how many hours they would have undertaken and thus their level of experience. Previous research by Machado et al. (1999) compared 36 experienced therapists to 36 psychology undergraduates and found experienced therapists were more accurate in their judgements and relied less on visual clues, and participants that were more aware of their own emotions were more accurate. Interestingly, however, there was no difference in ability to identify emotional intensity, this is in keeping with cultural differences of emotional perception. The study in general does have some difficulties, however, as the accuracy of participants was measured against the subjective scores of two judges who were deemed to be experienced. However, the judges were doctoral students and, as their level of expertise is questionable, the subjective nature of the study has implications for the efficacy of the study.

Hutchison et al. (2017) compared the ability of non-Hispanic, white American counselling psychology trainees with Japanese clinical psychology trainees in their ability to recognise facially expressed emotions in exploring whether there would be an ‘in-group’ advantage and whether female participants had greater accuracy. There was a total of 120 participants with 60 in each respective group, and they viewed photographs of non-Hispanic, white American and Japanese individuals expressing basic emotions and were asked to complete a survey assessing emotion-recognition and emotion-intensity. The findings indicated the non-Hispanic, white American counselling psychology trainees had a higher

accuracy rate than the Japanese clinical psychology trainees, there was no ‘in-group’ bias and there were no differences in ability related to gender. As yet there has been a paucity of research that has examined therapists’ ability to identify facial affect. The findings so far are mixed, and all the studies have had some level of methodological difficulties. For gelotophobes, were it to be the case that therapists are unable to detect their distress, it could offer a significant barrier to any form of recovery.

3.7 Summary of the Literature Review

The first part of the literature review focused on giving an overview of gelotophobia before looking at its definition, defined as a heightened fear of being the object of ridicule via the laughter of social partners. It saw how repeated traumatic experiences of being ridiculed, via laughter, is postulated to lead to a negative attribution bias of laughter that impacts negatively on interpersonal interactions. The focus then turned to understanding the development of gelotophobia and outlined salient factors such as bullying before highlighting areas in need of further research such as attachment, internal working models, and trauma. Moreover, it examined how the understanding of its development has changed from an original linear model of putative causes and consequences to a more holistic systemic understanding, incorporating feedback loops operating across many levels and etiological moderating factors. In doing this it saw how gelotophobes can react to expressions of joy in an atypical manner, as a defence, such as freezing and over-controlling their mannerisms, leading to further ridicule. Further to this, as gelotophobes perceive others as ridiculing them they respond by displaying greater incidents of contempt facial configurations and showing less joy, which further compounds and maintains their interpersonal difficulties.

The literature review then explored the measurement of gelotophobia and how research in this area has supported the belief that gelotophobia exists on a continuum from no gelotophobia to extreme gelotophobia. Moreover, it saw that cross-cultural research has

found the presence of gelotophobia in 73 countries with substantial research involving 95 researchers and 22,610 participants in 93 samples in clinical and non-clinical populations. The focus then moved to examine the use of the term gelotophobia and looked at some of the criticisms of diagnostic labels and how labels can locate the difficulty within the individual, which is not in keeping with the understanding of the development of gelotophobia, as it is currently believed to be a systemic issue. In the present research, the terms gelotophobia and gelotophobe are used, to enhance readability, rather than the more humanistic expression of 'an individual that experiences a heightened fear of being laughed at'. However, the present research is mindful of a need to counter the formation of new stereotypes by highlighting that gelotophobia occurs on a continuum and holding the stance that gelotophobia does not just occur within an individual but within a system and will seek to reflect on, and highlight, the role of the system in its conclusions. Also, the literature review saw how the use of diagnostic labels can also create tension with counselling psychology's humanistic values, and the present research will seek to transverse the epistemological differences by taking a pluralistic approach by holding different positions simultaneously and countering biases by using reflective skills.

The second part of the literature review brought together counselling psychology, the development of empathy and its relationship with facial affect recognition, and the importance of understanding the potential impact of gelotophobia on the success of therapy. In doing this it started by giving an overview of counselling psychology and how its foundations are based on Rogers' person-centred approach, which postulates that psychologists should embody three core conditions, empathy, congruence, and unconditional positive regard, to facilitate therapeutic change. It also highlighted that the therapeutic relationship is a salient factor in the success of therapy.

It saw how metacommunication is bidirectional, with individuals inferring each other's internal feelings through external facial expressions, which has implications for gelotophobes accessing therapy. The literature review outlined that even though a psychologist should be checking-in verbally with a client and undertaking a psychological formulation, the presence of gelotophobia has the potential to impact on the therapeutic relationship. This has led to researchers examining why gelotophobia is underrepresented within the therapeutic population to suggest gelotophobe clients may be disengaging from psychology early within the therapeutic process following misinterpreting reassuring smiles as scorn or ridicule. In examining these aspects and its implications for therapy via communication errors, the literature review gave an overview of metacommunication and facial affect and highlighted the evidence for seven universal expressions of emotion.

The literature review also gave an overview of empathy and outlined that this study will be focusing on affective and cognitive empathy. It saw how empathy develops by genetics interacting with the environment and how there is some evidence of person-centred training increasing empathy levels. Empathy is of particular importance to this study as there is a relationship between empathy levels and the ability to recognise others' facial affect. As such, should the humanistic foundations of counselling psychologists' impact on empathy levels, it would then be expected that this would, in turn, afford greater ability in recognising facial affect, which would be advantageous in recognising gelotophobes' incongruent presentations and would be beneficial in maintaining positive therapeutic relationships.

3.8 Research Aims

In keeping with the two sections of the literature review, this study aims to examine two parts. The first part relates to gelotophobia and investigating individuals' perceptions of gelotophobes reacting to expressions of joy. Although previous research has found, via taxonomising facial muscles, that individuals with gelotophobia tend to show fewer

expressions of joy and more expressions of contempt responding to expressions of joy, to date no research has examined how social partners perceive gelotophobe emotions in a joyful context or whether social partners can correctly identify gelotophobes' incongruent presentation. Should social partners perceive gelotophobes to respond differently to non-gelotophobes responding to joy, it will further support the belief that gelotophobes' incongruent responses to joy impacts on the success of interpersonal interactions and can also help inform psychological interventions. Moreover, it can help expand the systemic understandings of gelotophobia indicating facial affect encoding is a contributing factor in the development of gelotophobia.

The second part of the study looks to examine whether the empathic underpinnings of counselling psychology afford greater empathy and, in turn, whether empathy is a predictive factor in the facial recognition of the emotions of gelotophobes and non-gelotophobes. As yet, there has been little research examining therapists' ability to identify facial affect. Moreover, there has been no research examining counselling psychologists' empathy levels in comparison to non-psychologists or psychology other groups, despite empathy being a core condition of therapy, and there has also been no research examining whether counselling psychologists' empathy levels relate to correctly identifying facial affect. In undertaking the second part of this research, it will examine all aspects of the causal chain in terms of affective and cognitive levels of empathy, number of correct emotions identified and whether empathy levels predict the number of emotions identified via comparing counselling psychology (CP), non-psychology (NP), and psychology other (PO) groups. Finally, it will examine whether empathy mediates correctly identifying facial affect.

As such, this study has relevance to practice as a therapist's ability to communicate empathy and unconditional positive regard to the client is believed to predict successful outcomes in therapy. Therefore, the ability of counselling psychologists to differentiate

gelotophobes' facial affect would be beneficial in predicating positive outcomes in therapy by reducing dropouts and helping to develop and maintain the therapeutic relationship. Also, as gelotophobia is still overlooked in clinical practice, should psychologists not be able to identity the facial affect of gelotophobes, it could further highlight a need to disseminate how gelotophobia presents. It could also highlight the need for training specifically in relation to recognising incongruent facial affect.

3.9 Hypotheses

3.9.1 Part 1

H_{1a}: Participants will perceive non-gelotophobes to have significantly higher frequency of happiness compared to gelotophobes.

$H_{1b:}$ Participants will perceive gelotophobes to have significantly higher frequency of contempt compared to non-gelotophobes.

Gelotophobes have been found to respond to expressions of joy with less facially displayed joy (Platt et al., 2013), and with greater frequencies of contempt than non-gelotophobes (Hofmann et al., 2015; Ruch et al., 2015). It has been suggested by Ruch et al. (2015), that gelotophobes having incongruent responses to joy, displaying less joy, and more contempt, than non-gelotophobes, is a factor in the success of gelotophobes' interpersonal interactions. Previous research, however, assessing gelotophobes facial affect responding to expressions of joy was undertaken by researchers using FACS. The present study looks to expand on this understanding by examining whether others do perceive gelotophobes and non-gelotophobes to be different across happiness and contempt when responding to expressions of joy, thus confirming the potential for these factors to be implicated in the success of gelotophobes' interpersonal interactions.

H_2: Participants will identify more non-gelotophobe emotional states being displayed correctly than gelotophobe emotional states when reacting to expressions of joy.

Systemic understandings of the development of gelotophobia suggest a feedback loop consisting of gelotophobes having a negative attribution bias which affects their perception of expressions of joy, meaning they believe they are being the objects of ridicule, which leads them to react atypically to expressions of joy; this results in others perceiving them as acting funny and thus forms the basis of further ridicule (Ruch, Hofmann et al., 2014). A further factor in this feedback loop, however, may be encoding of facial affect. There is some evidence that deficits in facial displays of affect mean less empathy is felt by others and, as such, this contributes to the feedback loop (Cowie & Berdondini, 2002). This is in keeping with gelotophobes who not only show fewer facial displays of joy and incongruent emotions such as contempt but who also often try to mask negative emotions, resulting in further atypical presentations (Platt et al., 2013). As such, should participants identify fewer gelotophobe emotions, than non-gelotophobes, it could indicate a further factor in the development of gelotophobia.

H_3: There will be significantly more incorrect answers for gelotophobes compared to non-gelotophobes, when asked if the individual in the emotional stimulus had gelotophobia.

At present there is still a lack of awareness regarding gelotophobia, despite it being found across cultures, nationalities and in clinical and non-clinical populations (Proyer et al., 2009). As such, despite the atypical presentations and incongruent facial displays reacting to expressions of joy, it is expected that participants will not be able to identify which individuals have the heightened fear of being laughed at, due to a lack of knowledge of how the difficulty presents. As two-thirds of the participants in this study have a psychology background, should participants not be able to correctly identify the gelotophobes reacting to joy, it would highlight the need to further propagate how gelotophobia presents to foster positive outcomes in therapy. Moreover, should participants not be able to recognise

gelotophobes responding to joy, it would also further support the belief that deficits in facial affect contributes to the development of gelotophobia.

3.9.2 Part 2

H_4: Counselling psychology (CP) participants will identify more correct emotional states being displayed by gelotophobes than non-psychology (NP) and psychology other (PO) participants.

The humanistic person-centred approach is fundamental to counselling psychology training (Orlans & Van Scoyoc, 2008). Previous research has found that relational person-centred approach training can impact on empathy levels (Ruiz-Moral et al., 2017; Thompson et al., 2010). Further to this, previous research has found a positive correlation between level of cognitive and affective empathy and ability to identify emotions (Besel & Yuille, 2013; Gery et al., 2009). As such, this causal chain indicates that CP participants should be able to correctly identify more emotional states of gelotophobes compared to NP and PO participants should their empathy levels be increased by training.

H_{5a}: CP Participants will have a higher level of affective empathy than NP and PO participants.

H_{5b}: CP participants will have a higher level of cognitive empathy than NP and PO participants.

Numerous studies have examined the development of empathy levels by incorporating person-centred practice (Batt-Rawden et al., 2013; Ivey et al., 2010). The training focuses on developing active listening skills (DePue & Lambie, 2014) and teaching students to understand patients' concerns and feelings by not just focusing on verbal presentation of communication (Archer & Meyer, 2018; Ruiz-Moral et al., 2017). Research has indicated that cognitive empathy appears to be more susceptible to development (Epstein & Street, 2011; Platt & Keller, 1994). Overall, however, findings indicate cognitive and affective empathy can be developed via person-centred counselling training (Ruiz-Moral et al., 2017; Thompson et al., 2010). This is salient to counselling psychology as its foundations are built upon

humanistic values of the client-centred approach outlined by Carl Rogers (Orlans & Van Scoyoc, 2008); thus, should counselling skills training increase empathy, it would be expected CP participants would have higher empathy levels than NP and PO.

H_{6a}: Participants' affective empathy will positively correlate with the correct number of emotions identified.

H_{6b}: Participants' cognitive empathy will positively correlate with the correct number of emotions identified.

H_{6c}: Affective empathy will mediate the relationship between participant group and the correct number of emotions identified.

H_{6d}: Cognitive empathy will mediate the relationship between participant group and the correct number of emotions identified.

Previous research has found evidence of a relationship between level of cognitive and affective empathy and ability to identify facial affect (Besel & Yuille, 2013; Gery et al., 2009) and previous research has found that person-centred approach training can increase empathy levels (DePue & Lambie, 2014; Ruiz-Moral et al., 2017; Thompson et al., 2010). As such, as counselling psychologists' training is based upon a humanistic person-centred approach, it would be expected CP participants would have higher levels of empathy than NP and PO and, in turn, levels of empathy would predict the number of correct emotions identified. Therefore, an empathy mediated relationship is proposed between participant group and the number of correct emotions identified.

Chapter 4 Method

4.1 Methodological Rationale

In understanding the philosophy of a system, consideration should be given to the fundamental assumptions augmenting perception of the individual's place in the world and their relationships between the world and the researcher (Bohm, 1994). Crotty (2009) defined methodology as 'The strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes' (p. 3). The current research investigated whether the empathic underpinnings of counselling psychology afforded greater detection of gelotophobes' facial affect when responding to expressions of joy, by comparing counselling psychology, non-psychology, and psychology other participants. A fundamental aspect of the research was the assessment of participants' ability to correctly identify facial affect and its relationship with empathy. As such, an objective measurement was required to assess the accuracy of the perceived emotion. The facial action coding system (FACS) facilitated the removal of subjective emotional evaluation by coding specific facial behaviours, and this method has been deemed to have good psychometric properties (Savetter et al., 2001). Using a quantitative approach, therefore, looked to eliminate bias and remain emotionally detached to afford reliable results (Nagel, 1986), and afford the examination of the relationships between factors (Wilson et al., 2010). This approach is consistent with, and informed by, previous research on gelotophobia and facial recognition, and judged to be ontologically and epistemologically consistent with the present research aims (Slevitch, 2011). As such, a quantitative approach provided an examination between perceived emotions, presence of gelotophobia, and empathy, and it allowed for comparison between groups, which was in keeping with the research aims and scope.

The philosophical position of the present research, therefore, sits within the positivist paradigm, which connects the assumptions adopted throughout this thesis. Specifically, it

regards knowledge as a true object that can be observed in the world (Symon et al., 2000) and allows the detection of general patterns of behaviour via constructing and testing hypotheses (Frankfort-Nachmias & Nachmias, 1992).

The positivist position of reality existing independently has some difficulties, however, as individuals are not separate from their social context and even the very act of investigating their actions could influence their actions (Kasim et al., 2010). This research used stimuli that looked to minimise these confounds by clandestine filming of participants (Hofmann et al., 2015). The positivist stance has also been positioned as conflicting with the humanistic foundations of counselling psychology, with its core values aligning to respecting subjective experience and pursuing phenomenological methods for understanding human experience (Lane & Corrie, 2006).

Counselling psychology from its outset has had to navigate philosophical tensions; in contemporary practice this is highlighted by counselling psychology training, which necessitates being both a scientist-practitioner and a reflective practitioner (Health Care Professions Council, 2012). A scientist-practitioner takes an integrated stance to psychological theory in clinical practice and research methodology and encourages practitioners to use empirical research to inform their practice (Jones & Mehr, 2007). This is juxtaposed to the reflective practitioner's stance, which postulates practitioners should learn from experience to inform practice. The ability to manage these tensions and conflicting philosophies, however, is crucial to the role of a counselling psychologist.

Once more, the pluralistic approach can help traverse these conflicts by holding multiple epistemological and ontological positions (Cooper & McLeod, 2007). In a practical sense, to counter the challenges of conflicting paradigms counselling psychologists should engage the core skill of reflective practice, to identify and maintain its humanistic values

(Strawbridge et al., 2009). As such, although this research used a quantitative approach, it undertook reflective practice throughout the process and considered the role of social context within its understanding and interpretations of findings.

4.2 Design

The study was a quasi-experimental design, which consisted of three groups, counselling psychology (CP), non-psychology (NP), and psychology other (PO) participants. Participants were asked to complete an online emotion recognition task, two empathy questionnaires, and a questionnaire that afforded the identification of gelotophobia. The independent variables were: 1) participant's profession, i.e., 'counselling psychologist', 'non-psychologist', and 'psychology other'; 2) the empathy questionnaire scores, i.e., the Interpersonal Reactivity Index (IRI) and Empathy Quotient (EQ) questionnaires. The dependent variables were: 1) the emotions perceived, 2) the number of correct emotions identified, and 3) the number of gelotophobes identified.

4.3 Participants

Altogether 150 participants were recruited, 132 participants completed all aspects of the study, with 12 participants completing the demographics, IRI, EQ, and GELOPH <15> questionnaires, but not the emotional stimulus aspect of the study and there was one participant who completed all questionnaires, but only partially completed the emotional stimulus aspect of the study. There were a further six participants who withdrew from the study via the automatic withdraw button; therefore, these data were excluded and deleted.

The occupation of the participants was 44 CP, 54 NP, and 46 PO. The CP sample consisted of 44 English-speaking adults (5 males, 39 females), and there were 8 fully qualified counselling psychologists and 36 trainees that had completed the humanistic aspect of the counselling psychology doctorate training. The ethnicity of CP participants was 26 white British, 6 Asian British, 1 African Caribbean British, 7 white other, 1 Arabic, and 3

other. The NP sample consisted of 54 English-speaking adults (10 males, 44 females) and their ethnicity was 46 white British, 2 Asian British, 1 African Caribbean British, and 5 white other. The PO sample consisted of 46 English-speaking adults (5 males, 40 females, 1 non-binary). The ethnicity of PO participants was 26 white British, 2 Asian British, 1 mixed-heritage British, 1 African Caribbean British, 13 white other, and 3 other, and the specific job roles of the PO group are presented in Table 2.

Table 2

Displays the Count and Percentage of the Profession of the Participants in the Psychology Other (PO) Group

Profession	Count	Percentage
Clinical Psychologist	5	10.86%
Educational Psychologist	3	6.67%
Forensic Psychologist	3	6.67%
Occupational Psychologist	1	2.17%
Psychology Lecturer	3	6.67%
Psychology PhD	2	4.34%
Psychology Researcher	3	6.67%
CBT Therapist	1	2.17%
Accredited Counsellor	1	2.17%
Play Therapist	1	2.17%
Trainee Clinical Psychologist	1	2.17%
Trainee Forensic Psychologist	3	6.67%
Trainee CBT Therapist	1	2.17%
Trainee Counsellor	1	2.17%
Assistant Psychologist	2	4.34%
Research Assistant	1	2.17%
Psychology Master's degree	4	8.69%
Psychology Undergraduate	5	10.86%
Psychology Student	2	4.34%
Pupil Wellbeing Mentor	1	2.17%
Mental Health Support Worker	2	4.34%
Totals	46	100.00%

The age of participants was recorded via age range rather than specific age: This was to limit the impact of the demographic questions on participant anonymity. As such, no mean ages are available to present, but the breakdown of age ranges across groups is presented in Table 3 below.

Table 3

Displays Participant Age Range Across Groups

		CP	NP	PO	Total
Age	18-24	2	1	8	11
	25-34	18	13	19	50
	35-44	17	16	9	42
	45-54	5	20	5	30
	55-64	2	4	4	10
	65-74	0	0	1	1

Note. CP = counselling psychology, NP = non-psychology, PO = psychology other.

4.3.1 Sample Size

To determine the minimal sample size required for this study, four G*Power analyses were computed and displayed in Table 4. For the linear regression and mediation analysis, the same G*Power analysis was deemed sufficient, as was the G*Power analysis for both ANOVA and Kruskal-Wallis. Overall, the G*Power analysis indicated this study had a sufficient sample size to have confidence of detecting true effect.

Table 4

*Displays Findings from the Four G*Power Analyses Used to Determine Sample Size*

Analysis	Effect Size	α	1-β	*n*
ANOVA/ Kruskal-Wallis	F = .25	.05	.80	128
Binary logistic regression	z = 1.64	.05	.80	568
χ2 Goodness-of-Fit	w = .30	.05	.80	108
Linear Regression/ Mediation	f^2 = .15	.05	.80	68

Note. α = alpha level, 1-β = statistical power, *n* = sample size.

4.3.2 Recruitment

The recruitment of participants was disseminated across a number of different platforms for CP participants and NP participants. Firstly, direct recruitment was utilised for CP participants, in contacting trainee counselling psychologists on the University of Wolverhampton (UOW) Professional Doctorate in Counselling Psychology course, as well as contacting six qualified counselling psychologists already known to the author. Herein, intermediate recruiting was requested from individuals contacted, as they were asked to snowball to relevant parties. Secondly, participants were recruited across social media via Facebook, Twitter, and WhatsApp, which was then 'shared' by several other individuals. Thirdly, a post was placed on the British Psychological Society's (BPS) Facebook page that has an audience of 256,000 followers, as well as a post placed on The Division of Counselling Psychologists North West Facebook page that has 183 members consisting of qualified and trainee counselling psychologists. Fourthly, all university counselling psychology departments in the United Kingdom that offer the Professional Doctorate in Counselling Psychology were contacted via email asking them to distribute the research amongst their counselling psychologists and doctoral trainees, with the proviso that the trainees had completed a humanistic module. NP participants were recruited from the wider population, with an effort made to target age and gender demographics similar to those of the CP participants to account for differences in empathy levels found in previous research. As such, direct and intermediate recruiting was used again with friends who fitted the relevant demographics; they were not only asked to participate but subsequently asked to snowball the research to relevant potential participants. Also, CP participants were asked to snowball the study to NP individuals they knew within their demographic. Once more, social media platforms were used for the NP participants, with a post on Facebook requesting participants, though this post did not specify any demographics.

4.4 Materials

The emotional stimuli used in this study was appropriated from a prior study (Hofmann et al., 2015), whereby the participants had consented for their image to be used in further studies. They clandestinely filmed individuals in a standard interview setting undertaking an emotion elicitation task, i.e., responding to expressions of joy. The video clips featured 17 Swiss-German speaking individuals who were pre-screened with the GELOPH <15> to establish the presence of gelotophobia. The GELOPH <15> is a reliable subjective assessment for gelotophobia that takes the form of a self-report questionnaire (Ruch & Proyer, 2008); this questionnaire is outlined in more detail in the measures section. Eight of the 17 individuals featuring in the video clips had gelotophobia ranging from Slight gelotophobia to Extreme gelotophobia and for nine individuals there was no presence of gelotophobia, thus allowing comparison between groups (Appendix A). To distinguish between the present study's participants and the individuals in the video clips from the appropriated study, the appropriated study's participants will be referred to as 'the emotional stimulus' herein to avoid confusion.

4.4.1 Preparation of Materials

An emotional stimulus photo was generated via a screenshot of the appropriated study's video clips; this was used rather than full video clips as the timeframe required to code the videos was beyond the scope of the present study. The video clips were edited using Microsoft Movie Maker for Windows 10 and a photo (screenshot) of each video was taken at the apex of an Action Unit (AU) displayed: 30 seconds after the elicitation question. This period of time was chosen as it gave enough time for the AU to reach the apex and accounted for the variation of time needed for different emotional emblem displays.

To operationalise the emotional stimulus, the screenshots were coded with facial action coding system (FACS). FACS is an anatomically based, comprehensive and objective

technique, for measuring all observable facial movement. It distinguishes 44 AUs, which are minimal units that are anatomically separate and visually distinguishable. FACS also allows for measurement of the timing of a facial movement, its symmetry and intensity, and its degree of irregularity of onset, apex, or offset (Ekman et al., 2002a). This technique afforded the coding of specific facial muscles to determine the facial expression being displayed, e.g., Duchenne smile/happiness contains AU 12 + AU 6 (Ekman et al., 2002b); thus, enabling a comparison between the emotion being displayed in the emotional stimulus and participants' perception of the facial expression displayed.

To complete the FACS coding, it was necessary to undertake FACS training, which incorporates a 527-page self-instructed manual and typically takes 100 hours of self-directed training prior to taking a test to become an accredited coder (Ekman et al., 2002a). A five-day workshop, in conjunction with undergraduate students at the University of Wolverhampton, was also undertaken to consolidate the training prior to taking the test for FACS certification. The FACS test evaluated the reliability of coding via a series of 34 video segments against experts' coding. To pass the test, there must be a .70, or above, agreement with the criterion codes: the pass level achieved was .73. Passing the certification demonstrated proficiency in FACS coding; thus, the coding in this research is reliable and consistent with the coding of well-trained people (Ekman et al., 2002a). The FACS coding was initially undertaken by two certified FACS coders and then their answers were compared to each other, affording greater efficacy in the coding by ensuring the convergence between the intended and expressed displayed. The coding between coder one and coder two is displayed below in Table 5.

Table 5

Displays the GELOPH <15> Score and Coded AUs for Each Emotional Stimulus as Well as the Reliability Ratio Score Between Coders

ES	G	SS	Coder 1 AUs	Coder 2 AUs	*r*
32	1.2	1	1d+6e+25d+12d	6d+7D+12d+25d	0.75
	1.2	2	1b+2c+6d+25d+26d+12c	6e+7e+12e+25d+26c	0.73
	1.2	3	1c+6c+25d+26c+12e	6d+7e+12d+25d+26c	0.80
	1.2	4	6c+25b+26a+12c	6c+7c+12dc+25c+26c	0.88
	1.2	5	1b+6e+25c+26b+12d	1b+2b+6d+7d+12d+25c+26c	0.83
34	1.4	1	1b+2c+6c+12d+25e+26e	6c+7c+12c+25e+26e	0.73
	1.4	2	2b+6b+12b+25b	2b+6b+7b+12b+14b+25b	0.80
	1.4	3	2c+4b+7a+15b+20d	2c+15b+17b+20d+24b	0.60
	1.4	4	10d+17c	10b+15d+17c+24b	0.67
	1.4	5	4b+7e+17b+23d	R2c+17b+23d+38b	0.5
37	2.6	1	6e+12e+25d+26c	6e+12e+25d+26c	1
	2.6	2	6c+7d 10a+12d+25c	6d+7d+12d+25c	0.88
	2.6	3	4b+7b+17a+24c	4b+7b+15b+17a+24c	0.88
	2.6	4	10d+17d	10c+15b+17d+24 b	0.67
	2.6	5	12Rc+14Rc	14Rc+24b	0.5
48	1.2	1	6e+25e+26b+12d+	6d+7d+12d+25e+26b	0.88
	1.2	2	6c+25c+12d	6c+7c+12c+25c	0.85
	1.2	3	4b+7e+10b+25b+26c	6b+7b+12b+25b+26c+43e	0.73
	1.2	4	4b+10c+25b+26c	6b+7c+12b+20b+25b+26c	0.40
	1.2	5	6e+25c+26a+12c	6e+7e+12e+25c+26c	0.88
63	3.0	1	12b+14Rb	12b+14Rb	1
	3.0	2	12c+25c+26c	6Lc+12Rb+12Ld+ 25c+26c+43Ld	0.67
	3.0	3	6b+12b+25c+26c	6b+12b+25c+26c	1
	3.0	4	10b+17c	10b+15b+17c	0.80
	3.0	5	6b+12c+25c	6b+12b+25b	1
65	1.2	1	6e+25d+26b+12d	6e+7e+12d+25d+26b	0.88
	1.2	2	6e+25d+26c+12d	6e+7e+12e+25d+26d	0.88
	1.2	3	6d+25c+12c	6d+7d+12d+25c	0.85
	1.2	4	6c+25c+12d	6c+7c+12d+25c	0.85
	1.2	5	6d+25d+12e	6e+12e+25e	1
73	1.2	1	6c+25b+12c	6c+12c+25b	1
	1.2	2	6d+25b+12c	6d+12d+25b	1
	1.2	3	6c+25c+26a+12d	6c+7c+12d+25c+26a	0.88
	1.2	4	7b+25c+12c	2Lc+6b+7b+12b+25c	0.5
	1.2	5	6e+25c+12d	6c+7c+12c+25c	0.85
76	2.6	1	6d+25b+12c	6d+7d+12d+25b	0.85
	2.6	2	7d+25c+12d	6b+7b+12b+25b	0.85
	2.6	3	6a+12b+25b	6a+7b+12b+25b	0.85
	2.6	4	7e+12ab+25a	12b+25a+43e	0.67
	2.6	5	6d+25d+12d	6d+7d+12d+25d	0.85

ES	G	SS	Coder 1 AUs	Coder 2 AUs	*r*
83	2.5	1	10c	2Lb+10Lc	0.5
	2.5	2	10c+17d	10c+15b+17d	0.80
	2.5	3	6e+25d+26b+12e	6e+7e+12e+25d+26b	0.88
	2.5	4	6b+25b+26b+12c	6c+12c+25b+26b	1
	2.5	5	10c+25c	9b+10Rb+10Ld+12b+25c	0.57?
98	3.0	1	6d+12d+25c	6d+7d+12d+25c	0.85
	3.0	2	12c+14Rc	7Rd+7Lc+12c+24c	0.5
	3.0	3	7c+10c+12c+25c	7c+10b+12c+25c	1
	3.0	4	7d+25c+10b+12d+43e	12d+25b+43e	0.75
	3.0	5	6d+25c+26b+12d	6d+7d+12d+25c+26b	0.88
99	3.5	1	12bR+14bR	14bR	0.67
	3.5	2	12cR+14bR	14cR	0.67
	3.5	3	12cR+14bR	12b+14dR	1
	3.5	4	12dR+14cR	14cR	0.66
	3.5	5	12eR+14cR	2Lb+14dR	0.50
108	3.7	1	7c+25b+10a+12c+43e	7c+9b+10a+12c+43e	0.80
	3.7	2	7e+12Rc+14Rc+25b	7e+12Rc+14Rc+25b	1
	3.7	3	6a+7e+9c+12b+25c	6a+7e+9c+12b+25c	1
	3.7	4	6d+12d+25c	6d+7e+12d+25c	0.85
	3.7	5	7e+25b+10b	7e+9Lc+12b+25b	0.57
97	1.2	1	6b+12d+25b	6c+12c+25b	1
	1.2	2	6e+12e+25c	6d+12d+25d	1
	1.2	3	6e+12d+25c	6e+12e+25c	1
	1.2	4	6c+12c+25b	6c+7c+12c+25b	0.85
	1.2	5	6b+12c+25b	6b+12c+25b	1
82	1.6	1	1c+2d+5b	1d+2d+28b	0.67
	1.6	2	6b+12b	1b+2b	0
	1.6	3	1c+2b+4a+5c+25b	1c+2b+25b	0.75
	1.6	4	6b+12c+25b	6b+12b+25b	1
	1.6	5	6b+12b+25b	6c+12c+25b	1
84	1.2	1	6e+12d+25c	6d+7d+12d+25c	0.85
	1.2	2	6c+12c+25b	6c+7c+12c+25b	0.85
	1.2	3	6d+12d+25b	6d+7d+12d+25b	0.85
	1.2	4	6b+12c+25c	6c+7b+12c+25c	0.85
	1.2	5	7e+12b	6d+7d+12d+43e	0.67
86	1.4	1	6c+12c+25c	12c+25c	0.8
	1.4	2	6d+12d+25d	6d+7d+12d+25d	0.86
	1.4	3	6d+12d+25c	6b+7d+12c+25c	0.86
	1.4	4	12Rc+14Rb	14Rc	0.67
	1.4	5	6d+12d+25d	6d+12d+25d	1
90	3.5	1	12Rc+14Rb	10c+12b+14b	0.80
	3.5	2	12c	12c+14b+24c	0.50
	3.5	3	12b+14b	12b+15b	1
	3.5	4	14b	14b+24b	0.67

3.5	5	12Rc+14Rc	12Rc+14Rc	1

Note. ES = emotional stimulus code, SS = screenshot, G = GELOPH <15> score, AU = Action Unit, *r* = reliability ratio.

The overall KAPPA coefficient calculated between coders was (.64). Therefore, the reliability procedure outlined by Ekman et al. (2002b) was undertaken, whereby each individual screenshot that did not meet the .70 reliability index was revisited by both markers and compared to the FACS manual; in doing so the discrepancies of AUs were examined to establish whether there were errors made in coding. Through a process of mediation, all the codes that fell below the .70 were revisited until coding was agreed between the two coders. The adjusted codes are displayed below in Table 6.

It should be noted that the reliability ratio for intensity was not calculated for all codes as it is not required for basic emotions; rather, intensity is required for specific prototypes and major variants that were not displayed by the emotional stimulus. As such, the presence of certain AUs established the presence of an emotion. Moreover, not all facial expressions in the emotional stimulus met the strict criteria of the FACS AUs needed to determine an emotion expression as defined by Ekman et al. (2002b), and as such these photos were considered distractor stimulus.

Table 6

Displays the Recoded AUs for Each Emotional Stimulus, the Reliability Ratio Score Between Coders and the Emotion Pertaining to the Configuration of AUs

ES	Coder 1 AUs	Coder 2 AUs	*r*	Emotion
32	1d+6e+25d+12d	6d+7D+12d+25d	0.75	Happy
	1b+2c+6d+25d+26d+12c	6e+7e+12e+25d+26c	0.73	Happy
	1c+6c+25d+26c+12e	6d+7e+12d+25d+26c	0.80	Duchenne
	6c+25b+26a 12c	6c+7c+12dc+25c+26c	0.88	Duchenne
	1b+6e+25c+26b+12d	1b+2b+6d+7d+12d+25c+26c	0.83	Duchenne
34	1b+2c+6c+12d+25e+26e	6c+7c+12c+25e+26e	0.73	Happy
	2b+6b+12b+25b	2b+6b+7b+12b+14b+25b	0.80	Happy
	2c+4b+7a+15b+20d+24a	2c+15b+17b+20d+24b	0.72	

ES	Coder 1 AUs	Coder 2 AUs	*r*	Emotion
	10d+15d+17c	10b+15d+17c+24b	0.86	
	R2c+4b+17b+23d+38b	R2c+17b+23d+38b	0.88	
37	6e+12e+25d+26c	6e+12e+25d+26c	1	Happy
	6c+7d+10a+12d+25c	6d+7d+12d+25c	0.88	Happy
	4b+7b+17a+24c	4b+7b+15b+17a+24c	0.88	
	10d+17d+24a	10c+15b+17d+24 b	0.86	
	14Rc+24b	14Rc+24b	1	
48	6e+25e+26b+12d+	6d+7d+12d+25e+26b	0.88	Happy
	6c+25c+12d	6c+7c+ 12c+25c	0.85	Happy
	4b+7e+10b+25b+26c	6b+7b+12b+25b+26c+43e	0.73	
	4b+10c+25b+26c	6b+7c+12b+20b+25b+26c	0.40	
	6e+25c+26a+12c	6e+7e+12e+25c+26c	0.88	Happy
63	12b+14Rb	12b+14Rb	1	
	12Lc+25c+26c+43Lc	6Lc+12Rb+12Ld+25c+26c+43Ld	0.80	
	6b+12b+25c+26c	6b+12b+25c+26c	1	Happy
	10b+17c	10b+15b+17c	0.8	
	6b+12c+25c	6b+12b+25b	1	Happy
65	6e+25d+26b+12d	6e+7e+12d+25d+26b	0.88	Happy
	6e+25d+26c+12d+	6e+7e+12e+25d+26d	0.88	Happy
	6d+25c+12c	6d+7d+12d+25c	0.85	Happy
	6c+25c+12d	6c+7c+12d+25c	0.85	Happy
	6d+25d+12e	6e+12e+25e	1	Happy
73	6c+25b+12c	6c+12c+25b	1	Happy
	6d+25b+12c	6d+12d+25b	1	Happy
	6c+25c+26a+12d	6c+7c+12d+25c+26a	0.88	Happy
	2Lc+7b+25c+12c	2Lc+6b+7b+12b+25c	0.88	Duchene
	6e+25c+12d	6c+7c+12c+25c	0.85	Happy
76	6d+25b+12c	6d+7d+12d+25b	0.85	Happy
	7d+25c+ 12d+	6b+7b+12b+25b	0.85	Duchene
	6a+12b+25b	6a+7b+12b+25b	0.85	Happy
	7e+12ab+25a	12b+25a+43e	0.67	Non-Duchene
	6d+25d+12d	6d+7d+12d+25d	0.85	Happy
83	2Lb+10Lb	2Lb+10Lc	1	
	10c+17d	10c+15b+17d	0.8	
	6e+25d+26b+12e	6e+7e+12e+25d+26b	0.88	Happy
	6b+25b+26b+12c	6c+12c+25b+26b	1	Happy
	9a+10Rc+10Ld+12b+25c	9b+10Rb+10Ld+12b+25c	1	
98	6d+12d+25c	6d+7d+12d+25c	0.85	Happy
	7Rd+7Lb+12c+14Rc+24b	7Rd+7Lc+12c+24c	0.88	
	7c+10c+12c+25c	7c+10b+12c+25c	1	
	7d+25c+10b+12d+43e	12d+25b+43e	0.75	
	6d+25c+26b+12d	6d+7d+12d+25c+26b	0.88	Happy
99	12Rb+14Rb	14bR	0.67	Contempt

ES	Coder 1 AUs	Coder 2 AUs	*r*	Emotion
	14bR	14cR	0.67	Contempt
	12cR+14bR	*12b+14Rd*	*1*	Contempt
	14cR	*14cR*	*1*	Contempt
	2La+14Rc	2Lb+14Rd	1	Contempt
108	7c+25b+10a+12c+43e	7c+9b+10a+12c+43e	0.8	
	7e+12Rc+14Rc+25b	7e+12Rc+14Rc+25b	1	Contempt
	6a+7e+9c+12b+25c	6a+7e+9c+12b+25c	1	
	6d+12d+25c	6d+7e+12d+25c	0.85	Happy
	7e+9Lb+25b+10b	7e+9Lc+12b+25b	0.75	
97	6b+12d+25b	6c+12c+25b	1	Happy
	6e+12e+25c	6d+12d+25d	1	Happy
	6e+12d+25c	6e+12e+25c	1	Happy
	6c+12c+25b	6c+7c+12c+25b	0.85	Happy
	6b+12c+25b	6b+12c+25b	1	Happy
82	1c+2d+28b	1d+2d+28b	1	
	1c+2b	1b+2b	1	
	1c+2b+4a+5c+25b	1c+2b+25b	0.75	
	6b+12c+25b	6b+12b+25b	1	Happy
	6b+12b+25b	6c+12c+25b	1	Happy
84	6e+12d+25c	6d+7d+12d+25c	0.85	Happy
	6c+12c+25b	6c+7c+12c+25b	0.85	Happy
	6d+12d+25b	6d+7d+12d+25b	0.85	Happy
	6b+12c+25c	6c+7b+12c+25c	0.85	Happy
	6d+7e+12b	6d+7d+12d+43e	0..86	Duchene
86	6c+12c+25c	12c+25c	0.8	
	6d+12d+25d	6d+7d+12d+25d	0.86	Happy
	6d+12d+25c	6b+7d+12c+25c	0.86	
	14Rc	14Rc	1	
	6d+12d+25d	6d+12d+25d	1	Happy
90	12Rc+14Rc	10c+12b+14b	0.8	Contempt
	12C+14a+24b	12c+14b+24c	1	
	12b+15b	12b+15b	1	
	14b+24a	14b+24b	1	
	12Rc+14Rc	12Rc+14Rc	1	Contempt

Note. ES = emotional stimulus code, AU = Action Unit, *r* = reliability ratio.

The recalculated overall KAPPA coefficient between coders displayed in Table 6 was (.88). As such, this is above the .70 reliability index suggested by Ekman, Friesen, & Hager (2002b).

4.4.2 Measures

In order to assess for a possible confound of participants in the present study having gelotophobia, the GELOPH <15> questionnaire was presented to all participants (Ruch & Proyer, 2008b). This is a 15-item self-report questionnaire for the subjective assessment of gelotophobia (a sample item is: 'I avoid showing myself in public because I fear that people could become aware of my insecurity and could make fun of me'). Answers are given on a four-point answer format (1 = 'strongly disagree' to 4 = 'strongly agree'). Ruch & Proyer (2008b) report high reliability coefficients (α = .86).

To measure for cognitive empathy, the Empathy Quotient (EQ) questionnaire was used (Lawrence et al., 2004). This questionnaire comprises of 40 items to assess cognitive and social sides of empathy (a sample item is: 'People often tell me that I went too far in driving my point home in a discussion'). Answers are given on a four-point answer format (1 = 'strongly agree' to 4 = 'strongly disagree'). Lawrence et al. (2004) reported high reliability coefficients (α = .84). Lawrence et al. (2004) conducted components analysis of the EQ questionnaire and showed reasonable communalities with loadings onto three factors: cognitive empathy, emotional reactivity, and social skills. Five questions have been shown suitable for the cognitive empathy subscale (25, 26, 44, 52, and 54; Muncer & Ling, 2006). Only the cognitive empathy subscale was used in the present study. The Cronbach's alpha for the cognitive empathy was 0.79.

The Interpersonal Reactivity Index (IRI; Davis, 1983) is a 28-item, widely used measure that assesses an individual's predilection towards empathy (a sample item is: 'I often have tender, concerned feelings for people less fortunate than me'). Answers are given on a five-point answer format (1 = 'Does not describe me well' to 5 = 'Does describe me well'). IRI contains four seven-item subscales, each addressing subtypes of empathy. The present

study, however, only used the Empathic Concern (EC) subtype in measuring affective empathy. Davis (1983) reported high reliability coefficients for this subtype (a = .80).

4.5 Procedure

The online platform Qualtrics was used to host the emotional stimulus and questionnaires. All questions were a forced choice response: on missing a question, participants were not able to proceed, with Qualtrics highlighting the missed question, at which point participants could choose to answer the missed question or proceed to the next question. A withdraw button was added on every page; thus, participants were able to withdraw their data at any point. If activated, the withdraw button displayed the end screen featuring the research author's and supervisor's email addresses (Burleig, 2018).

The first part of the study provided the information necessary for informed consent to participate, which included a definition of gelotophobia, and asked the participants to confirm whether they understood the information. Participants were then presented with three demographic questions: age, gender, and ethnicity, as it is known that certain demographics such as age and gender can impact on levels of empathy (Baron-Cohen & Wheelright, 2004; Davis, 1980; Sun et al., 2017). Participants were also asked what their occupation was and given the options of: qualified counselling psychologist and trainee counselling psychologist (who has completed the humanistic module), non-psychology, and psychology other. The PO option was added to afford a control on a possible confounding variable, of individuals from other psychology backgrounds participating once the study was disseminated online. In doing this it gave PO participants an opportunity to provide a qualitative answer detailing their occupation, e.g., clinical psychologist, forensic psychologist, and assistant psychologist. Participants were then asked to complete the IRI and EQ questionnaires to gain a measure of participants' affective and cognitive empathy. Following this, participants were presented

with the GELOPH <15> questionnaire, which acted as a control for gelotophobes participating in the study as this could possibly skew the findings.

In the second part of the study, participants were asked to identify the emotion the person was displaying in the photo. In doing this, the emotional stimulus photo was presented (for emotional stimuli see Appendix B) and participants were given a choice of emotions to choose from: anger, sadness, joy, disgust, surprise, fear, or contempt. In conjunction with this, participants were asked whether they thought the person in the photo had gelotophobia and were given the choice of 'yes or no'. There were eight gelotophobes and nine non-gelotophobes, i.e., a total of 17 emotional stimuli. There were five screenshots from each emotional stimulus participant; thus, a total of 85 photos used when participants were asked to judge the perceived emotion and whether the emotional stimulus had gelotophobia. This was restricted to 56 photos when assessing the accuracy of identifying facial affect, as not all of the 85 emotional stimuli screenshots met the strict FACS criteria for a basic emotion; in these cases, the stimulus not meeting the FACS criteria was considered a distractor. The final part of the study consisted of a debrief section which once again gave participants the author's and supervisor's email addresses.

4.6 Ethical Considerations

Ethical approval was given by the University of Wolverhampton Ethics Committee for this study (Appendix B) following minor amendments (Appendix C). Participants were informed they were free to withdraw at any time and a withdraw button was available throughout the study. Prior to the onset of the study, informed consent was sought by informing participants of the nature and aims of the study. After completing the study, participants were given debrief information and, once again, an opportunity to withdraw as well as the contact details of the author and supervisor. No ethical issues arose in the study or in the processing of the data.

Chapter 5 Results

5.1 Data Cleaning

Qualtrics software was used to collect all data online and verified all participants used an English language version of the software. All participant data collected in Qualtrics were exported to IBM Statistical Package for the Social Sciences (SPSS) version 24. Following data exportation, all data were cleaned identifying, and adjusting values Qualtrics had denoted incorrectly. The only missing values in the dataset resulted from 12 participants not completing the emotional stimulus aspect of the study and one participant partially completing the emotional stimulus aspect of the study. These missing values were entered under -99 as a discrete missing value. Data were also checked for the confounding variables of age, gender, and the presence of gelotophobia.

5.2 Analysis

5.2.1

H_{1a} Participants Will Perceive Non-gelotophobes to Have Significantly Higher Frequency of Happiness Compared to Gelotophobes

H_{1b} Participants Will Perceive Gelotophobes to Have Significantly Higher Frequency of Contempt Compared to Non-gelotophobes

In examining whether participants will perceive non-gelotophobes to have significantly higher frequency of happiness compared to gelotophobes, and whether participants will perceive gelotophobes to have significantly higher counts of contempt compared to non-gelotophobes, a χ^2 test was undertaken. The unit of analysis was individual case trials rather than participants. The independent variable was gelotophobe and non-gelotophobe stimuli and the dependent variable was the frequency of happiness and contempt answers. This was an examination of perception, rather than if their perception was correct. The cross-tabulated frequencies of happiness and contempt for non-gelotophobes and gelotophobes are displayed in Table 7.

Table 7

Summary of Participants' Frequency of Perceived Counts of Happiness, and Contempt for Gelotophobes and Non-Gelotophobes Responding to Expressions of Joy

Emotion	Gelotophobes	Non-Gelotophobes	χ^2
Happy	2004	4083	710.00***
Contempt	673	278	164.06***

Note. n = 7038 total participant trials across both analyses, χ^2 = Chi Square, *** = $p < .001$.

Table 7 above shows that there were significantly higher frequencies of happiness for non-gelotophobes compared to gelotophobes, and there were larger frequencies of contempt perceived for gelotophobes than non-gelotophobes. These findings support the hypotheses H_{1a}, and H_{1b}.

5.2.2 H_2 Participants Will identify More Non-gelotophobe Emotional States Being Displayed Correctly than Gelotophobe Emotional States When Reacting to Expressions of Joy

In examining whether participants were more able to correctly identify non-gelotophobe emotional states compared to gelotophobes responding to expressions of joy, the GELOPH <15> score of the stimuli was used for analysis to also afford an investigation of difficulties across the GELOPH continuum. The unit of analysis was individual case trials rather than participants (n = 7334 participant trials). The independent variable was the GELOPH <15> score of the stimulus and the dependent variable was whether the stimulus was responded to incorrectly or correctly. As seen in Table 8, binary logistic regression indicates the GELOPH <15> score of the individuals in the emotional stimuli was a significant predictor of correctly identifying their emotion (χ^2 = 1062.02, df = 1, $p < .001$), Cox & Snell R Square = .134, Nagelkerke R Square = .192.

Table 8

Displays Binary Logistic Regression Analysis for the Relationship Between GELOPH <15> Score and the Number of Correct Emotions Identified

Variable	*B*	*SE*	*OR*	95% CI	Wald
GELOPH <15> score	-.879	.028	.415	[.393, .439]	979.214***

Note. CI = confidence intervals for odds ratios (OR), *** = p < .001. Dichotomous variables as 0 = incorrect and 1 = correct.

The findings from the binary logistic regression in Table 8 show the GELOPH <15> score of the individuals in the emotional stimuli was a significant predictor of correctly spotting their emotion. This indicates that as an individual's level of gelotophobia increases the ability of others to identify their emotion decreases. Overall, these findings support the hypothesis that participants will correctly identify more non-gelotophobe emotional states being displayed than gelotophobe emotional states.

5.2.3 H_3 There Will be Significantly More Incorrect Responses for Gelotophobes Compared to Non-gelotophobes, When Asked if the Individual in the Emotional Stimulus Had Gelotophobia

All participants were asked whether they thought the individual in each emotional stimulus had gelotophobia. The unit of analysis was individual case trials rather than participants. The independent variable was the presence of gelotophobia in the stimuli and the dependent variable was the frequency of correct and incorrect answers. As seen in Table 9, all answers were collated together and examined using a Chi square test of independence for overall answers and across incorrect and correct answers for gelotophobe and non-gelotophobe emotional stimuli.

Table 9

Displays a Chi Square Test of Independence across Incorrect and Correct Answers for Gelotophobe and Non-Gelotophobe Emotional Stimuli

	n	Expected	Incorrect	Correct	*df*	*χ2*
Overall	11162	5581.0	4482	6680	1	432.82***
Non-gelotophobes	5910	*2955.0*	1161	4749	1	2178.29***
Gelotophobes	5252	2626.0	3321	1931	1	367.88***

Note. *n* = number of participants trials, *df* = degrees of freedom, χ^2 = Chi square score, *** = $p < .001$.

The results in Table 9 show that overall, there were significantly more correct answers relating to whether the individuals in each emotional stimulus had gelotophobia. The number of correct and incorrect identifications for each gelotophobe and non-gelotophobe emotional stimulus was then examined separately. For non-gelotophobe emotional stimuli, the pattern held as there were significantly more correct identifications than incorrect. For the gelotophobe emotional stimuli, however, this pattern was reversed as there were significantly more incorrect identifications than correct. These findings show that, when asked whether an individual has gelotophobia, participants were able to identify when they did not, but they were unable to identify when they did. As such, the findings support the hypothesis that there will be significantly more incorrect responses for gelotophobes compared to non-gelotophobes, indicating participants could not identify the presence of gelotophobia.

5.2.4 H_4 Counselling Psychology (CP) Participants Will Identify More Correct Emotional States Being Displayed by Gelotophobes than Non-psychology (NP) and Psychology Other (PO) Participants

In examining whether CP participants will identify more correct emotional states being displayed by gelotophobes than NP and PO, the unit of analysis was participants (*N* =132), the independent variable was participant group, which had three levels: CP, NP, and PO, and the dependent variable was the number of emotional states identified correctly for

gelotophobes. A visual inspection of the correct emotional states for gelotophobes data (histogram, Appendix E) indicated the data were not normally distributed. A Shapiro-Wilk test of normality was computed, CP (p = .036), PO (p =.003), and NP (p =.126) and a skewness of CP -.826 (*SE* = .365), PO -1.235 (*SE* = .369), NP -.115 (*SE* = .340) and kurtosis of CP .943 (*SE* = .717), PO 2.517 (*SE* = .724), NP .423 (*SE* = .668). Skewness and kurtosis were then divided by its *SE* to identify how far the sample data are different from the normal distribution; ±1.96 limits were considered as normally distributed. Skewness of CP= -2.26, PO=-3.35, NP= -.33; kurtosis of CP= 1.31, PO= 3.47, NP=.633 confirmed the data were not normally distributed. Thus, a Kruskal-Wallis test was used instead of a parametric one-way ANOVA.

A Kruskal-Wallis test showed there was a significant difference between groups (H (2) = 7.645, p= 0.22) in the number of correct gelotophobe emotional states identified. Post hoc pairwise comparisons were undertaken for 3 comparisons, thus the alpha threshold of .05 was Bonferroni corrected by dividing this value by 3 = .0167. The analysis found CP group (*Mdn* =14, *SD* = 3.95) was significantly different (H = 21.156, *SE* = 7.993, $p < .001$) to NP group (*Mdn* = 13, *SD* = 2.85). There was a non-significant difference (H = 4.015, *SE* = 8.045, p = .615) between NP group (*Md n* = 13, *SD* = 2.85) and PO group (*Mdn* = 13, *SD* = 3.12) and non-significant difference (H = 17.106, *SE* = 8.345, p = .040) between PO group (*Mdn* =13, *SD* =3.12) and CP group (*Mdn* = 14, *SD* = 3.95). The results indicate that CP participants were significantly better at identifying the emotional states of gelotophobes than NP participants, but the differences between the CP and PO participant groups, and PO and NP participants groups were non-significant.

5.2.5 H_{5a} CP Participants Will Have a Higher Level of Affective Empathy Than NP and PO Participants

In examining whether CP participants' affective empathy was higher than NP and PO participants, the unit of analysis was participants (*N* =144), the independent variable was participant group, which had three levels: CP, NP, and PO, and the dependent variable was the participants' affective empathy score (empathic concern). A visual inspection of the affective empathy data across occupation (histogram, Appendix F) indicated the data were not normally distributed. This was confirmed by a Shapiro-Wilk test of normality, CP (*p* = .002), PO (*p* = .007), and NP (*p* = .027), with a skewness of CP -1.088 (*SE* = .357), PO -1.157 (*SE* = .350), NP .024 (*SE* = .325) and kurtosis of CP 1.836 (*SE* = .702), PO 2.850 (*SE* = .688), NP -.983 (*SE* = .639). Skewness and kurtosis were then divided by its *SE* to identify how far the sample data are different from the normal distribution; ±1.96 limits were considered as normally distributed. Skewness of CP = -3.04, PO = -3.30, NP = .07 and kurtosis of CP = 2.61, PO = 4.14, NP = -1.53 confirmed the data were not normally distributed. Thus, a Kruskal-Wallis test was used instead of a parametric one-way ANOVA.

A Kruskal-Wallis test was calculated, which reported there was a non-significant (*H*(2) = .200, p = .948) difference in affective empathy scores across occupation: CP (*Mdn* = 22.5, SD = 3.11), NP (*Mdn* = 22, SD = 3.43) and PO (*Mdn* = 23, *SD* = 3.40), indicating there was no difference in affective empathy levels between CP, NP, and PO groups.

5.2.6 H_{5b} CP Participants Will Have a Higher Level of Cognitive Empathy Than NP and PO Participants

In examining whether CP Participants had a higher level of cognitive empathy than NP and PO Participants, the unit of analysis was participants (*N* = 144), the independent

variable was participant group, which had three levels: CP, NP, and PO, and the dependent variable was participants' cognitive empathy score (EQ score). A Shapiro-Wilk test of normality was computed for cognitive empathy, CP (p = .042), PO (p = .001) and NP (p = .152), and a skewness of CP -.095 (*SE* = .357), PO -.744 (*SE* = .350), NP -.099 (*SE* = .325) and kurtosis of CP -.895 (*SE* = .702.), PO -.411 (*SE* = .688), NP -.076 (*SE* = .639). Skewness and kurtosis were then divided by its *SE* to identify how far the sample data are different from the normal distribution; ±1.96 limits were considered as normally distributed. Skewness of CP = -1.27, PO = -2.12, NP = -0.30 and kurtosis of CP = -1.27, PO = 0.60, NP = -.12 confirmed the data were not normally distributed. Thus, a Kruskal-Wallis test was used instead of a parametric one-way ANOVA.

A Kruskal-Wallis test for cognitive empathy found a significant ($H(2) = 15.188$, p = .001) difference between participant groups. Post hoc pairwise comparisons were undertaken for 3 comparisons, thus the alpha threshold of .05 was Bonferroni corrected by dividing this value by 3 = .0167. The analysis found the CP group (*Mdn* = 8, *SD* = 2.25) was significantly different (*H* = 32.009, *SE* = 8.300, p<.001) to the NP group (*Mdn* = 5, *SD* = 2.23). There was a non-significant difference (*H* = -13.080, *SE* = 8.723, p = .134) between the CP group (*Mdn* = 8, *SD* = 2.25) and the PO group (*Mdn* = 7, *SD* = 2.04), and a non-significant difference (*H* = 18.930, *SE* = 8.402, p = .024) between NP group (*Mdn* = 5, *SD* = 2.23) and PO group (*Mdn* = 7, *SD* = 2.04). These results indicate CP participants had a higher level of cognitive empathy compared to NP participants, whereas there was a non-significant difference in the ability between the CP and PO groups and PO and NP groups.

5.2.7 H_{6a}: Participants' Affective Empathy Score Will Positively Correlate with The Correct Number of Emotions Identified

In examining whether participants' affective empathy score will positively correlate with the correct number of emotions identified, the unit of analysis was participants (*N* =132), the independent variable was participants' affective empathy score, and the dependent variable was the number of correct emotions identified. Using the enter method, linear regression analysis was computed to explore whether participants' affective empathy predicts the number of correct emotions identified. As seen in Table 10, A non-significant model emerged (F (1,130) = .106, p = .745).

Table 10

Displays Linear Regression Analysis for Affective Empathy and the Number of Correct Emotions Identified

Variable	B (SE)	95% CI	β	*t*
(Constant)	39.175 (4.631)	[30.013, 48.336]		8.460
EC	.067 (.205)	[-.338, .471]	.029	.326

Note. R^2 = .001, R^2 adjusted = -.007. Confidence interval for B.

Table 10 indicates greater affective empathy does not predict an increase in correct emotions identified.

5.2.8 H_{6b} Participants' Cognitive Empathy Will Positively Correlate with the Correct Number of Emotions Identified

In examining whether participants' cognitive empathy score will positively correlate with the correct number of emotions identified, the unit of analysis was participants (*N* = 132), the independent variable was participants' cognitive empathy score, and the dependent variable was the number of correct emotions identified. Using the enter method, linear

regression analysis was computed to explore whether participants' cognitive empathy predicted the number of correct emotions identified. Data met the assumptions of normally distributed residuals of the regression, homoscedasticity, and absence of multicollinearity. As seen in Table 11, a significant model emerged $F(1,130) = 3.928$, $p = .050$.

Table 11

Displays Linear Regression Analysis for Cognitive Empathy and the Number of Correct Emotions Identified

Variable	B (SE)	95% CI	β	*t*
(Constant)	34.459 (3.204)	[28.120, 40.798]		10.755***
EQ	.126 (.063)	[.000, .251]	.171	1.982*

Note. $R^2 = .029$, R^2 adjusted = .022. Confidence interval for B. * = $p=.05$, *** = $p < .001$.

Table 11 shows the model explains 2.9% of the variance in identifying the correct emotion. The number of correct emotions identified increased by .126 for each point increase in EQ score. These findings show there is a positive correlation between cognitive empathy and correct number of emotions recognised, where greater cognitive empathy predicts more correct emotions identified.

5.2.9 H_{6c}: Affective Empathy Will Mediate the Relationship Between Participant Group and the Correct Number of Emotions Identified.

As H_{5a} found the differences in affective empathy between CP, NP, and PO were non-significant and H_{6a} found affective empathy does not predict correctly identifying emotions, mediation analysis was not computed for whether affective empathy will mediate between participant group and the correct number of emotions identified.

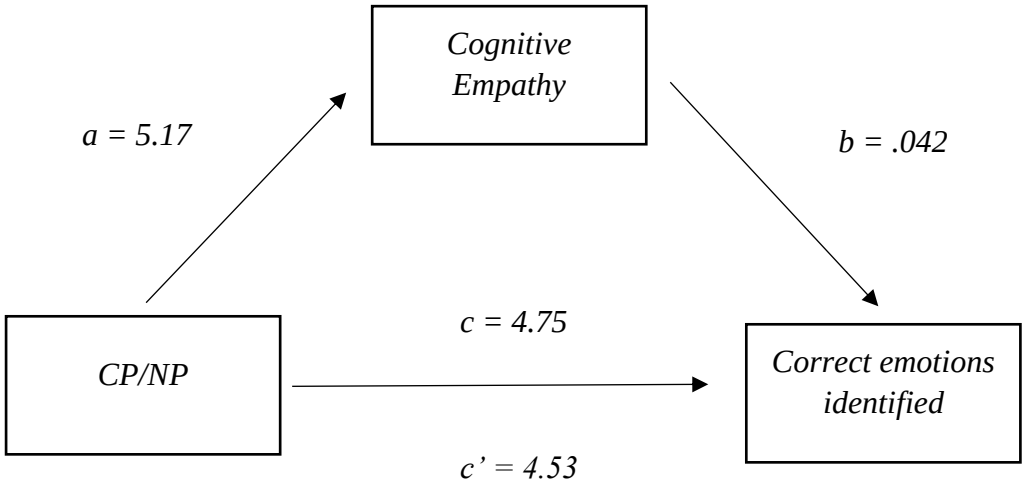
5.2.10 H_{6d}: Cognitive Empathy Will Mediate the Relationship Between Participant Group and the Correct Number of Emotions Identified.

In examining whether cognitive empathy will mediate the relationship between participant group and the correct number of emotions identified, the unit of analysis was participants (N = 91), the independent variable was participant group, which had two levels: CP and NP, the dependent variable was the number of correct emotions identified, and the mediator was the participants' cognitive empathy score. It should be noted the PO group was excluded from the mediation analysis as there was a non-significant difference between the PO and NP groups for cognitive empathy levels, as seen in H_{6a}. As such, belonging to the CP and NP groups was used to predict the number of correct emotions identified with cognitive empathy expected to mediate this relationship. See Figure 2 for a visual diagram of mediated relationship.

Using mediated procedures described by Hayes (2018), Model 4 PROCESS analysis was conducted This indicates that the *a* path of difference between groups (X) on emotional empathy (M) was significant (b = 5.17, t(89) = 2.51, p = .013). CP on average have greater levels of emotional empathy than NP. Additionally, the difference between groups (X) is significantly related to the number of correct emotions identified (Y), which is the *c* path b = 4.75, t(88) = 2.91, p = .004. On average, CP correctly identified more emotions correctly than NP. This model indicates however the *b* path (M) to (Y) is non-significant (b = .042, t(89) = 5.07, p = .613). The overall indirect effect was .222, 95% CI [-.554, 1.316] and the mediation proportion was 4.66%. These results indicate mediation has not occurred and as such cognitive empathy is not mediating the ability of CP and NP to correctly identify emotions.

Figure 2

Mediated Relationship Between CP and NP Group and the Number of Correct Emotions Identified with Cognitive Empathy as Mediator



5.3 Summary of Key Findings

The results found non-gelotophobes to have a significantly higher frequency of perceived happiness than gelotophobes, and gelotophobes to have a significantly higher frequency of perceived contempt than non-gelotophobes when responding to expressions of joy. There was a higher count of correct emotional states identified for non-gelotophobes than for gelotophobes, and the GELOPH <15> score of individuals in the relevant emotional stimulus was a significant predictor of correctly spotting their emotion, i.e., as the presence of gelotophobia increased, the number of correct emotions identified decreased. Participants were also unable to correctly identify the presence of gelotophobia when gelotophobia was present in the emotional stimulus; however, participants were correct when gelotophobia was not present in the emotional stimulus.

CP participants identified significantly more emotional states of gelotophobes compared to NP participants, but the difference between CP and PO, and NP and PO

participants was non-significant. CP participants also had a higher level of cognitive empathy compared to NP participants, although there was a non-significant difference in the cognitive empathy between CP and PO groups. Also, there was a non-significant difference between groups for affective empathy, with the PO group reporting the highest average score.

Finally, there was a non-significant relationship between affective empathy and emotional states correctly identified. There was a significant relationship between participants' cognitive empathy and correct number of emotions recognised, where greater cognitive empathy predicts more correct emotions identified. However, when this relationship was explored further via mediation analysis, although there was a significant relationship between participant group and cognitive empathy, and participant group and number of correct emotions recognised, there was a non-significant relationship between cognitive empathy and number of correct emotions recognised. Thus, the mediation analysis indicated cognitive empathy was not mediating between participant group and the number of correct emotions being identified.

Chapter 6 Discussion

6.1 Summary and Integration of Findings

This study used a quasi-experimental quantitative approach which structured its investigation into two parts. The first part related to gelotophobia and examined participants' perceptions of gelotophobes' and non-gelotophobes' facial affect when reacting to expressions of joy, as well as investigating whether their perceptions were correct. Participants were also asked whether they could identify the gelotophobes reacting to joy. The second part of the study looked to examine whether the empathic underpinnings of counselling psychology afforded greater empathy and, in turn, is a predictive factor in the facial recognition of the emotions of gelotophobes. In undertaking the second part of the research, it examined all aspects of the causal chain in terms of affective and cognitive levels of empathy between participant groups, the number of correct emotions identified between participant groups, and whether empathy levels predict the number of correct emotions identified. Finally, it examined whether empathy mediated the relationship between participant group and the number of correct emotions identified. Participants were presented with emotional stimuli appropriated from a prior study of gelotophobes and non-gelotophobes undertaking an emotional elicitation task responding to expressions of joy. Participants were asked to identify what emotion the individual in the screenshot was displaying, which had been coded prior using FACS to establish the correct emotion. Participants were also asked to complete three questionnaires measuring affective empathy, cognitive empathy, and their level of gelotophobia.

The first hypothesis was split into two parts to investigate whether participants would perceive non-gelotophobes to have significantly higher counts of happiness compared to gelotophobes and whether they would perceive gelotophobes to have significantly higher counts of contempt compared to non-gelotophobes when responding to expressions of joy.

The frequency of perceived happiness and contempt was examined across all gelotophobe and non-gelotophobe emotional stimuli. The focus of this analysis was on participants' perception of emotion, rather than whether they were correct in their perception. A significant relationship was found between emotional state perceived and the presence of gelotophobia. Overall, participants tended to perceive the emotional stimulus to be happy when responding to expressions of joy. When examined across groups, however, the non-gelotophobes were indeed perceived to be significantly happier, as the frequency of perceived happiness for gelotophobes dropped by 50% in comparison to the non-gelotophobes. There were also significantly larger frequencies of perceived contempt for the gelotophobes. As such, participants did perceive non-gelotophobes to have significantly higher counts of happiness compared to gelotophobes, and gelotophobes to have significantly higher counts of contempt compared to non-gelotophobes, when responding to expressions of joy.

These findings are in keeping with Platt et al. (2013) who had previously found gelotophobes responded with less facially displayed joy (Duchenne display) compared to non-gelotophobes when responding to laughter-emitting, enjoyable emotions. Hofmann et al. (2015) used FACS when investigating smile misattribution and facial responses, as well as rating images for contempt and joy. They also found gelotophobes rated joy smiles as less joyful and more contemptuous. Moreover, gelotophobes showed less facial joy and more contempt markers. This was further supported by Ruch et al. (2015) who examined whether the lower levels of joy and higher levels of contempt were specifically related to joy or other aspects of joy associated with laughter. They investigated the verbal and facial responses of gelotophobes and non-gelotophobes reacting to people recalling memories of laughter-eliciting, positive emotions. The participants were filmed clandestinely and coded with FACS. Once more, gelotophobe participants were found to have fewer joyful smiles and more expressions of contempt.

Platt and Ruch (2009), examined German and English adults and found a relationship between level of gelotophobia and amount of joyful experience in their lives: Gelotophobes' most joyful experiences were of a lower intensity than the ones for non-gelotophobes. Also, their most intense experiences of joy also happened in conjunction with a higher latency, thus taking longer to begin and not lasting as long, and their level of joy was less facially expressed. It is also in keeping with clinical observations that gelotophobes express less joy, are less animated, and can appear cold and detached (Titze, 2009). There is some evidence that gelotophobes tend to be less 'lively' or are humourless (Ruch, Beermann et al., 2009), although this has also been attributed to humour type as gelotophobes have been found to be introverts (Ruch et al., 2013). The present findings, therefore, are in keeping with previous findings of gelotophobes showing less facial joy and more contempt, although it should be noted there was more variability in responses overall, with greater incidence of disgust, fear, and sadness for gelotophobes. The slight divergence from previous research is unsurprising as previously findings were generated from FACS measurement of what emotions were being displayed, whereas current findings differ as they were generated from participants' perceptions of gelotophobes and non-gelotophobes responding to expressions of joy. The present findings contribute to previous research by widening the understanding of how social partners perceive gelotophobes when responding to expressions of joy and can have implications for informing psychological interventions for gelotophobes with interpersonal relationships.

The findings also have some crossover with trauma research, which has found that individuals with a PTSD diagnosis often experience some emotional numbing, which is a persistent inability to experience positive emotions (American Psychiatric Association, 2013), and as such, show less positive affect to positive stimulus (Frewen et al., 2012). It has been suggested that emotional numbing results from the avoidance of trauma-related stimuli,

thus avoiding distressing emotions (Keane et al., 1985). Emotional numbing, therefore, is believed to be a defence from experiencing trauma and relates to dissociation (Litz & Gray, 2002). As gelotophobia is believed to be precipitated by repeated experiences of trauma via ridicule, then some of the reduced perceptions of happiness may be resulting from emotional numbing rather than just a skewed perception of joy. Also, individuals that have experienced trauma tend to be sensitive to shame-related external and internal threats (Gilbert & Procter, 2006). Defences from shame-related threats can include acting rude, aggressive, being unlikeable/unfriendly, and acting aloof (Lee & James, 2013). It could be argued that displaying contempt markers within interpersonal interactions is a defence to keep social partners at a distance. Trauma and gelotophobia, however, appear to diverge with difficulties decoding: Individuals who have experienced trauma have typically been found to have difficulties with decoding facial affect relating to fear and sadness (Poljac et al., 2011), unlike gelotophobes who have difficulties relating to joy. The crossover in the reduced experiences of positive affect, however, indicate that further investigation of the link between gelotophobia and trauma could be beneficial, especially as at present there is a dearth of research in this area.

The second hypothesis examined whether participants would identify more non-gelotophobe emotional states being displayed correctly than gelotophobe emotional states when responding to expressions of joy. Binary logistic regression supported this view as it found that the presence of gelotophobia in the emotional stimulus related to correctly identifying the emotional state. That is, as the person's level of gelotophobia increased, the likelihood of others correctly identifying their emotional state decreased. Gelotophobes have previously been found to have difficulties decoding facial expressions due to a negative attribution bias affecting perception (Platt, 2008; Ruch, Altfreder et al., 2009), and this

negative attribution hinders gelotophobes' interpersonal interactions (Platt & Forabosco, 2014).

The findings, however, that the level of gelotophobia inversely relates to participants' ability to identify the correct emotion, indicates that gelotophobes also have difficulty encoding emotions. Metacommunication required for greater success in interpersonal interactions requires both encoding and decoding of facial expressions (Zuckerman et al., 1975; Zuckerman et al., 1976). Thus, gelotophobes not only have difficulty interpreting signals of communication necessary for successful social interactions, but they also have difficulty encoding emotions, which leads to other individuals having difficulty decoding and inferring their emotional states and responding accordingly (Smith et al., 2005).

The presence of gelotophobia predicting others' inability to decode an individual's emotional state could be an extra factor in the development of gelotophobia, as well as indicating a factor in understanding gelotophobes' difficulties in maintaining relationships. The initial explanations of the development of gelotophobia were attributed to putative causes and consequences based on clinical interviews (Ruch, 2004; Titze, 2009). This was developed further, moving away from linear explanations towards a systemic approach moderated by micro, meso, and macro factors, as well as incorporating feedback loops (Ruch, Hofmann et al., 2014). Ordinarily, individuals look to manage their self-presentation to control social partners perceptions and, in turn, how they engage with them (Schlenker, 2012). Gelotophobes, however, become hypervigilant of others, with self-observation inducing increased self-control, in their efforts to try to reduce the chance others will perceive them as ridiculous which, in turn, may induce further feelings of humiliation (Renner & Heydasch, 2011). This maladaptive behaviour makes gelotophobes appear to act atypically (oddly), resulting in others perceiving them as acting funny and thus forming the basis of further ridicule (Ruch, Hofmann et al., 2014). This aspect of gelotophobia, therefore, shares

traits of social phobia with a maladaptive behaviour cycle that has a primary aim to avoid derision by withdrawing and internalising, but gelotophobia differs from social phobia by having a specific precipitator of laughter (Platt et al., 2012).

The findings of others not being able to identify gelotophobes' emotions also indicate an additional factor within the developmental feedback loop, where social partners are unable to recognise gelotophobes' discomfort when being 'teased' and, therefore, empathy is not induced which ordinarily inhibits social partners' laugher. In this sense, social partners may not be able to identify what is just playful teasing (banter) to them, is inducing feelings of shame and humiliation in gelotophobes. This is consistent with research into bullying which has found that the victims tend to have deficits in displays of facial affect which could not only invoke protective responses from peers but might lead to the bullying lasting for extended periods (Cowie & Berdondini, 2002). The role of correct encoding and decoding of facial affect has also been witnessed in criminal offending behaviour, where research has found that sexual offenders are less able to recognise the correct facial emotions of others (Gery et al., 2009) and, as such, this may contribute to offending behaviour as they do not receive the correct facial signals inducing empathy.

Typically, when responding to bullying, young people invoke strategies of fighting back, telling a teacher/caregiver, or telling a friend (Black et al., 2010). Gelotophobes, however, typically do not confront agents of laughter themselves (Platt et al., 2012); rather they have atypical presentation which Titze (1996) referred to as 'Pinocchio Complex' where they act wooden like mannequins. This defence is in keeping with the fight-flight-freeze response, which are behaviours occurring in the presence of a threat. Freezing, tonic immobility, is thought to be an evolved response to 'play dead' to avoid attack and incorporates both motor and vocal inhibition (Schmidt et al., 2008). Should this defence be

activated, however, to deal with the perceived shame induced by laughter, gelotophobes affect would not be communicated effectively.

Wilton et al. (2000) found that displays of sadness and surprise were most common when children were experiencing bullying, and that when bullies were met with incongruent joyful expressions it had a propensity to continue the attack. When confronted with non-aggressive bullying, Schwartz et al. (1993) found victims tended to respond with submissive facial features displaying fear and distress via crying. When victims responded with a blank face, however, it particularly affected their peers as they perceived the victim to be strange (Cowie & Berdondini, 2002). This is of particular salience to gelotophobes as bullying prevention programs which focus on empowering peers to intervene found that several factors influence whether a peer would intervene in bullying, including the perceived seriousness of the situation, the peer's own experience of being bullied and if the bullying is aimed at a friend (Stives et al., 2018). As such, if peers are not able to assess the level of discomfort experienced by gelotophobes via facial affect, it could inhibit any intervention. In addition, should gelotophobes react with a defence of freezing and having a blank face, as referred to with the Pinocchio Complex, it could further alienate them from their peers, thus compounding and maintaining their interpersonal difficulties.

A recent preliminary study which examined the association between arousal, self-report of anxiety, and facial expressions among autistic adolescents supports the position that encoding deficits impacts on interpersonal interactions. They found autistic adolescents' facial expressions did not coincide with their arousal. The authors suggested this has implications for understanding social communication difficulties among autistic adolescents (Jain et al., 2019). That is, autistic individuals are often aware they have a heightened arousal, but they are not showing it, leading to others not adjusting their behaviour and, in turn, leading to further dysregulated behaviour from ASD individuals and by others accordingly.

This study utilised a small sample and did have some methodological issues as the kappa coefficient between coders indicated a lack of consistency. However, given there is a large overlap between ASD and gelotophobia, it indicates a need for further research into the role of deficits in facial affect encoding. This could be beneficial in expanding the understanding of the aetiology, and perpetuating factors, of gelotophobia, and it also gives a further indication of the systemic nature of gelotophobia.

It has previously been highlighted that there is a need to recognise how gelotophobia manifests in school settings resulting from bullying which has been found across all ages and from gelotophobes, peer reports, teacher ratings, and adults (Platt, Proyer et al., 2009; Proyer et al., 2010; Proyer, Meier et al., 2013). Resulting from these studies, there have been further suggestions of a need for targeted intervention programs in schools increasing the awareness of the potential harm and long-lasting impact of being the object of ridicule, as a preventative measure (Platt et al., 2016). This is something this research echoes, but the current findings also highlight that the potential benefits of teaching young people how to communicate, and manage, their emotions in a more helpful manner could help induce greater empathy in others and be a protective factor in bullying.

Gelotophobes have been found to have a higher probability of being single than non-gelotophobes, and this was consistent across all ages (Platt & Forabosco, 2012; Ruch & Proyer, 2008). This pattern has largely been attributed to gelotophobes disengaging from romantic relationships when they encounter a smile, or laughter, following misattributing its meaning (Platt et al., 2016). However, it would also be expected that internal working models (IWM) developed via experiences with attachment figures would form expectations regarding relationships, which can lead to internalising negative expectations of self and others (Bowlby, 1982). Individuals with an avoidant attachment style have been found to inhibit their emotional closeness by disengaging from partners and suppressing feelings to prevent

feeling vulnerable (Tan et al., 2012). Their attachment anxiety informs negatively biased perceptions that shape the activating of defences towards romantic partners (Overall et al., 2015). The present findings indicate, however, that gelotophobes' difficulties with relationships may not be due to them merely misinterpreting others' emotions or having negative expectations, as with IWMs and attachment anxiety, but it can also relate to social partners not being able to recognise gelotophobes' emotions and further points to gelotophobia being maintained by systemic feedback loops.

Highlighting the role of system in the construction of gelotophobia not only has the benefit of offering an intervention in the system but it also helps externalise difficulties and, in turn, validates the difficult experiences of individuals with a heightened fear of being laughed at. If gelotophobia emerges and is maintained by an individual's system and, their defences to a perceived hostile system, then the term gelotophobe, should it continued to be used, needs to be bracketed with an explanatory narrative highlighting that the problem is not merely within the individual; rather it is a difficulty/defence resulting from complex intersubjective interactions. Previous research in gelotophobia postulated that the development of gelotophobia happens across micro, meso, and macro levels and incorporates systemic feedback loops (Ruch et al., 2014); there is a danger, however, that should the term gelotophobia become a diagnostic label, it could locate any difficulty within the individual and navigate research, and interventions, away from the social system being the precipitating factors of unhappiness (Hare-Mustin & Marecek, 1997). This research has also seen that where an individual sits on the continuum of gelotophobia relates to the level of impact on interpersonal interpretations of facial affect. It is important to continue the propagation of gelotophobia occurring on a continuum and is an experience all people have to different degrees, in order to inhibit stigma.

Hypothesis 3 postulated that if gelotophobia was present it would not be identified. When this data was collated and analysed together, initially the results showed that, overall, participants were able to accurately state whether the individual in the emotional stimulus had gelotophobia, which seemed to support the null hypothesis. However, participants' answers for the gelotophobe and non-gelotophobe emotional stimuli were examined separately and there was a stark difference. For the non-gelotophobe stimuli, participants displayed a significantly high level of accuracy in determining that the individual did not have gelotophobia. This pattern, however, was reversed for the gelotophobe emotional stimuli, as participants were significantly inaccurate in their assessment of when gelotophobia was present. As such, this study found that when gelotophobia was present, participants were not able to identify it, although it is interesting that participants were so accurate in their assessment when gelotophobia was not present.

At present, there is still a lack of awareness regarding gelotophobia despite research finding its presence across cultures, nationalities, and in clinical and non-clinical populations (Proyer et al., 2009). In clinical practice, there is also a lack of awareness of gelotophobia as patients tend to underreport it and it is not included in any diagnostic manuals, further adding to a lack of awareness (Platt et al., 2016). Moreover, some clinical psychologists, psychotherapists, and psychiatrists doubt its existence (Platt, 2013). This lack of awareness, therefore, means the knowledge of how it presents within metacommunication when responding to expressions of joy has not been disseminated. The non-gelotophobes in the emotional stimuli tended to have typically happy facial configurations; given that participants were told the research was examining gelotophobia and it was explained that this was the heightened fear of being laughed at, it is logical they used happy configurations as a contextual clue that the individual was as a non-gelotophobe. Whereas, with the gelotophobes, their facial configurations were far more mixed; although happy expressions

were included, there were more incidents of contempt facial displays which participants were less accurate in assessing. As such, although participants could use the presence of being happy as an indicator of an individual not having gelotophobia, they did not have any reference point as to how someone with gelotophobia presents, which is fitting with the mixed results. This highlights a need to disseminate further the difficulties individuals face when experiencing the heightened fear of being laughed at and how it presents, which is not yet in the awareness of most clinicians working in a psychotherapeutic manner; furthermore, this has implications for therapeutic relationships. This also lends further support to the idea of there being an extra factor at a micro level, of the development of gelotophobia within the feedback loops, as not only were participants not able to correctly identify gelotophobes' emotions, but they were also not able to identify the presence of gelotophobia.

The second part of the study looked to examine whether the empathic underpinnings of counselling psychology afforded greater empathy and, in turn, is a predictive factor in the facial recognition of the emotions of gelotophobes. In doing this, it started by examining whether CP participants would identify more emotional states of gelotophobes being displayed correctly than NP and PO participants (hypothesis 4). The results found a significant difference between CP and NP groups, but there was a non-significant difference between NP and PO groups, and PO and CP groups. These findings showed that, on average, CP participants did indeed identify more correct emotional states of the gelotophobe emotional stimuli compared to NP, thus indicating that the empathic underpinning of CP participants may be enabling greater recognition of emotions. CP also identified more correct facial emotional states than the PO group, albeit the difference was non-significant; it is difficult to draw conclusions from this given there is an array of professions in the PO group including some from a therapeutic background.

It should be noted, however, the accuracy level for the CP participants in identifying the correct emotion of the gelotophobe stimuli was only 58.33%, and NP and PO had an accuracy of 54.16%. Given all stimuli used in this analysis met the FACS criteria for basic emotions, it is interesting that participants' accuracy levels dropped dramatically for gelotophobe participants. It is known that gelotophobes tend to have an atypical presentation; as such, although the atypical presentations within the emotional stimuli that did not meet the FACS strict criteria for a basic emotion were excluded when analysing the correct emotions, their presence within the study may have primed participants' perceptions of the gelotophobe emotional stimuli. Alternatively, the only emotion displayed for the non-gelotophobe emotional stimuli was the state of being happy which is what would be expected when responding to expressions of joy. However, within the gelotophobe participants there were more expressions of contempt and, as such, participants may have been experiencing greater difficulty recognising other emotions. This is in keeping with previous research which has found that individuals tend to decode happy face displays quicker and more accurately. The basic emotions have been compared to each other and recognition accuracy was at its highest for happy expressions, both for closed-mouth and open-mouth displays of happiness (Tottenham et al., 2009); this pattern increases linearly when the time in which the emotional stimulus is presented is decreased (Calvo & Lundqvist, 2008). This would still have implications for gelotophobes, however, as others would still be less likely to perceive their emotion correctly and thus, once again, empathy would not be induced.

The findings of hypothesis 4 that CP participants identified more correct emotional states compared to NP initially appear to be contrary to the previous research of Hutchison and Gerstein (2012). They found that there was no significant difference between counselling trainees and other undergraduate students in rating the emotion of individuals. The difference in the level of clinical experience of participants may account for the difference in the current

findings. The participants in the study seemingly had limited or no training and limited or no clinical experience of working with patients in a therapeutic manner. In the present research, however, CP participants were either qualified counselling psychologists or were doctorate-level trainees who at the very least had completed a humanistic module, which ordinarily means in the UK that they would have completed a year of training at doctorate level. A first-year counselling psychology trainee at the University of Wolverhampton would be expected to have between 80–150 hours of one-to-one psychotherapeutic work with patients in their first year. In addition, they also would be expected to already have a level 2 certificate in counselling and at least six months' experience or 100 hours of equivalent experience of one-to-one therapeutic work with patients. By the end of the doctorate training, they are required to have achieved 450 hours of one-to-one psychotherapeutic work with patients.

Hutchison and Gerstein (2012) also suggested a parsimonious reason for the non-significant difference in their findings in terms of a ceiling affect, as both of their groups were reporting an accuracy rate above 80%. Interestingly, in the present study, overall participants averaged a 74.13% accuracy rate in identifying the correct emotions. Although this is above the 70% mark used for determining the accuracy of universality in emotion recognition (Wolfgang & Cohen, 1988), the accuracy level was affected by the presence of gelotophobia. When examined further, participants' average accuracy rate for the non-gelotophobe emotional stimuli was 86.76% when identifying the correct emotion, whereas participants' average accuracy rate for gelotophobe emotional stimuli was only 54.16%. It may be that the presence of gelotophobia, and thus more incongruent presentations of responding to joy, may be providing more of an opportunity for clinical judgement to display its ability, whereas universal displays of emotion are more likely to induce ceiling effects by its very nature.

Decoding metacommunication from clients is helpful for active listening and building therapeutic relationships. This is not merely a one-way process of clients sending communication to the therapist to decode but also therapists sending messages to clients to decode (Del Giacco et al., 2020). These findings, therefore, have potential difficulties for therapy: although CP participants were able to identify more correct emotions, their accuracy was much lower for gelotophobes and, as such, there is an increased risk of therapists misidentifying gelotophobes' emotions and the potential for miscommunication to fracture the therapeutic relationship.

Active listening, a core skill of counselling, is necessary to build and maintain a positive therapeutic relationship and is linked to positive therapeutic outcomes (de Roten et al., 1999). In undertaking active listening, a therapist needs to be present in the moment and monitoring internal metacognition, whilst attending to the client's communication. This requires not just parroting clients' utterances but rather demonstrating listening by simultaneously attending to metacommunication, affective messages, and patterns of behaviour (Beck & Kulzer, 2018). Should therapists not be able to discern gelotophobe facial affect, therefore, it could have a direct impact on the success of therapy. Research has found therapist interventions relating to metacommunication facilitate positive therapeutic outcomes (Li et al., 2016) and, as such, not recognising any distress following a smile may lead not only to fracturing of the therapeutic relationship but also to a missed opportunity for an intervention. This finding then is in keeping with the assertion by Platt et al. (2016) that gelotophobes drop out of therapy early due to the therapeutic relationship being fractured by metacommunication issues. This is also in line with research which examined the factors leading to early psychotherapeutic dropouts, i.e., therapy having a negative impact on client self-esteem, therapeutic relationship issues, and therapists not clarifying experiences (Kegel

& Flückiger, 2014). In gelotophobes, a therapist's reassuring smile or laugh could induce feelings of shame, thus affecting self-esteem and leading to a discontinuation of therapy.

In combating the difficulties, it is important for therapists to be present in the moment, remain curious, reflect, and check in regularly with clients to inhibit any metacommunications issues and misunderstandings. Moreover, integrating a specific cross-sectional formulation relating to interpersonal interactions and context would be beneficial, highlighting further areas of exploration and indicate a direction for interventions, when working on an individual level (Kuyken et al., 2011). This should not distract, however, from acknowledging that gelotophobia is constructed by the system and, as such, in therapeutic terms would ideally benefit from a systemic intervention involving all aspects of a system. Furthermore, preventative measures are much needed in respect of continued education within schools and with caregivers as to the potential harm of what others perceive as playful banter or teasing.

Previous research has suggested that psychologists should be aware of incongruent affect as it is an indicator of a need for further investigation within therapeutic sessions (Foley& Gentile, 2010). Although the findings in the present research echo that suggestion, particularly for gelotophobes, they also draw attention to the issue of it being more difficult to identify atypical presentations: although CP participants were significantly more able to correctly identify emotions than NP, they had more difficulty correctly identifying gelotophobes' atypical metacommunication, as did NP and PO groups. As such, the finding that accuracy rate in correctly identifying facial affect decreases for incongruent facial affect, has implications for therapy in general, with possible opportunities for interventions going unnoticed, and the potential to fracture the therapeutic relationship. Non-verbal communication in therapy, however, also includes other factors: paralanguage – voice tone, pacing, and volume; proximity – attending to the client's body positioning; posture – body

orientation and angle, back posture, hand placement, leg placement, and position in a chair; and autonomic displays – sweat production, flushed face, blotchy skin, shallow breathing, stomach noises, and crying (Beck & Kulzer, 2018). None of these factors is assessed in the present research and, therefore, the diminished communication may be inhibiting correctly identifying the incongruent emotions.

It is postulated that it is clinically important that therapists have an accurate awareness of clients' experience of the therapeutic relationship, given it is a strong predictor of the outcome of therapy (Horvath et al., 2011). Therapists have been found to be inaccurate in assessing the level of therapeutic alliance with a client, with therapists consistently underestimating the level of alliance (Hartmann et al., 2015; Tryon et al., 2007). The evidence, however, suggested that this had minimal effect on the outcome of therapy (Fitzpatrick et al., 2005; Marmarosh & Kivlighan, 2012), as it was suggested to have resulted from therapists having a realistic perception of the therapeutic process, whereas clients' perception incorporates more hope (Horvath et al., 2011). There is, however, a paucity of research examining the ability of therapists to accurately identify incongruent affect; given it is an important factor within therapy, it seems a much-needed area of research.

An alternative explanation as to why the percentage of correct answers for gelotophobes was so low could be the lack of social context. That is, previous research has found that context can influence individuals' perceptions of facial affect (Barrett & Kensinger, 2010). In this study, contextual confounds were controlled by the emotional stimulus being filmed through a peephole, thus reducing how much of the room was visible; the room also had a plain background and was filmed in a standard interview setting. It could be, however, that the lack of context, albeit with good intentions, inhibited participants from being able to utilise context to disambiguate the facial affect presented, as one would in a social interaction. This is especially true for perceptions of affect within the context of a

group, as research has shown greater cultural differences in affect decoding in groups, and that perceptions of facial affect can be magnified in intensity when witnessed in a group (Hess et al., 2015). It is also unknown whether the role of cultural nonverbal 'accent' plays a role in the present study; this is where cultures exhibit subtle differences in encoding and decoding emotions (Marsh et al., 2003). There is some evidence that accuracy levels are higher when the encoder and decoder are from the same national or ethnic group (Elfenbein & Ambady, 2002). In the present study, many participants identified their ethnicity as outside of the United Kingdom'; however, Qualtrics' online platform recorded that all participants used the English version of the software. This is important as meta-analysis of emotion recognition, within and across cultures, has found that in-group advantages in recognition of emotions is mediated by exposure to the respective culture (Elfenbein & Ambady, 2002). As such, given that all participants were able to speak English, it would indicate some level of exposure to Western cultures, thus helping to inhibit any differences. It would be beneficial for future research, however, to examine this study with more contextual information as well as examining whether results are consistent across cultural backgrounds.

The next part of the causal chain examined was the levels of empathy between CP, NP, and PO groups. In doing this, hypothesis 5 was split into two parts and cognitive and affective empathy were examined separately, as there is evidence that cognitive empathy is more susceptible to change from person-centred training than affective empathy (Platt & Keller, 1994). Hypothesis 5_a was that the CP group would have higher levels of affective empathy than the NP and PO groups. This hypothesis was not upheld as there was a non-significant difference between groups and, as such, the null hypothesis of there being no difference between CP and NP groups was accepted. The PO group on average reported the highest empathic concern scores measuring affective empathy, albeit only .50 greater than the CP group; the NP group reported the lowest empathic concern score on average. This

indicates that there was no significant difference in affective empathy between groups in the present study. It may be, however, that ceiling effects are impacting on this aspect of the study with all three groups scoring relatively high. Empathic concern measures an individual's level of compassion and, as such, for an individual to be willing to participate in a study of this ilk, which necessitated taking some time out of their day, it may have self-selected more compassionate individuals, especially as this data were collected online, thus participants would feel no other pressure to continue if they lost interest.

These current findings relating to affective empathy are not in keeping with Hall et al. (2000) who examined dispositional empathy of clinical psychologist and psychotherapist practitioners registered with the American Psychological Association (APA) compared to experimental psychologists. They found practitioners engaging in therapy reported higher empathic concern (affective empathy) and higher levels of perspective taking when compared to their academic counterparts. It should be noted, however, the average score reported for each group in the present study was higher than any other groups in the Hall et al. (2000) study. Also, the experimental psychologists scored significantly higher in personal distress and Hall et al. suggested the higher personal distress found in the experimental psychologists related to individuals self-selecting into experimental psychology rather than the clinical division. Youniss et al. (1985) found that academics tended to be more theoretical, achievement focused, less altruistic, and less other-person-oriented as compared to clinical practitioners, and they suggested that lower affective empathy may be a defence strategy in dealing with the higher levels of personal distress. If this were the case, the different occupational samples within the Hall et al. (2000) study could account for differences with the present study.

Secondly, hypothesis 5_b examined the hypothesis that CP participants would have a higher level of cognitive empathy than NP and PO participants. CP participants did indeed

report significantly higher cognitive empathy compared to the NP participants. It should be noted that the PO group, however, had only a one-point difference from the CP group, but the difference between the PO participants and NP participants was not statistically significant. This is in keeping with research which has found a link between learning, and delivering, counselling skills, such as active listening, with increased empathy levels (Cutcliffe & Cassedy, 1999; DePue & Lambie, 2014; Eres et al., 2015; Ivey & Daniels, 2016; Ivey et al., 2010; Lyons & Hazier 2002; Moreno-Poyato et al., 2017). Empathy in counselling psychology, defined as the ability to experience and understand clients' feelings, is related to the core conditions of therapy and active listening skills (Horvath & Bedi, 2002). As such, although counselling psychologists' teaching on non-verbal cues is limited, the present findings are in keeping with previous research which has found person-centred routes may be affording greater empathy levels and with research that has found a link between empathy and ability to identify emotions (Besel & Yuille, 2010).

An alternative explanation to person-centred counselling training increasing cognitive empathy is that more empathic individuals are drawn into therapeutic professions. Motivational theory suggests that individuals with certain characteristics are drawn to professions consistent with these characteristics (Holland, 1996). Research focusing on the motivation of psychotherapists for entering the career found evidence that therapists have a greater than average need to understand others and human behaviour (Farber et al., 2005). The fact the PO participants also reported a higher level of empathy than the NP may support this, although the difference between the PO and NP was non-significant. It is difficult to draw conclusions regarding the PO group, given there was such an array of experience and expertise amongst its participants; although there were some qualified clinical, forensic, occupational, and research psychologists within it, there were also a number of psychology undergraduates.

A further explanation could be seen in a study from Daw and Joseph (2009) which investigated the relationship between psychological mindedness and desirable therapist attributes. They found psychological mindedness is related to therapist self-understanding, clinician empathy, and therapeutic alliance. Psychological mindedness was also negatively related with self-understanding recognition scores, which indicates that positive therapist attributes are related to psychological mindedness. As such, reflective practice and personal development could be contributing to differences in cognitive empathy. In counselling psychology training, a salient focus is put on personal development. In the process of training, individuals undertake a personal development module spanning three academic years and are also expected to undertake 40 hours of personal therapy, as well as operating as reflective practitioners, which includes keeping ongoing process notes to reflect on one's own feelings and actions. Clinical psychology also operates from a reflective practice stance (Fisher et al., 2015); however, with only five fully qualified clinical psychologists making up the PO group, it is not possible to ascertain whether these assumptions hold true for that population.

Greater empathy levels in counselling psychologists could have implications for practice. Elliott et al. (2018) found from multiple meta-analyses that empathy is a moderately strong predictor of the success of therapy and, as such, greater empathy levels have the potential to facilitate better outcomes in therapy. Empathy on its own, however, they suggested is not enough for positive outcomes; rather, positive therapeutic outcomes incorporate therapists who are empathically attuned to clients' experiences rather than just their words, and who pay attention to unspoken nuances. Empathic responses necessitate therapists to constantly monitor and adjust their perceptions, and understandings, by paying attention to the client's experience and emerging feelings (Kennedy-Moore &Watson, 1999). Moreover, to convey empathy therapists need to understand their patient's experience,

including their feelings and cognitive state, and should there be errors in this process it will inhibit therapists from conveying empathy, which once more will impact on the therapeutic relationship (Beck & Kulzer, 2018). This then links back to the need for accuracy in judging a client's communication of affect. In conjunction with this, there is a need to adjust the level of empathic response depending on the client's past experience, as some clients find too much empathy unsettling (Kennedy-Moore &Watson, 1999). These factors for incorporating empathy into therapy would also be beneficial for working with gelotophobes, with attention being paid to the client's non-verbal experience, and constantly adjusting perception by paying attention to the client's experience could help identify gelotophobes' incongruent response to a reassuring smile.

This study also examined the link between empathy and the ability to identify facial affect. This was done to substantiate the assumption within this research that there is a causal chain involving empathy and the ability to recognise facial affect. In doing this, the hypothesis was split into four parts, it firstly looked at the relationship between cognitive and affective empathy with the number of correct emotions identified, before examining whether cognitive and affective empathy mediated the groups' ability to identify correct emotions. A significant relationship was found between cognitive empathy and correctly identified emotions; however, there was a non-significant relationship between affective empathy and the ability to identify facial affect. Cognitive empathy predicating the correct identification of facial affect was fitting with previous research (Besel & Yuille, 2013). The affective empathy findings, however, are at odds with the findings which found a significant link between empathic concern (affective empathy) and facial affect recognition (Gery et al., 2009). Different forms of facial affect are processed in different parts of the brain, e.g., recognition of fear is associated with the amygdala (Sato et al., 2002). Besel & Yuille (2013) suggested that, as affective empathy is defined by having compassion for facial markers of distress,

there is more of an association between fear recognition and affective empathy. The present study, however, has a large count of expressions of joy and, therefore, this might account for why cognitive empathy and affective empathy are differentially relating to ability to identify affect. These different findings may also reflect the amount of time participants spent looking at each picture. Within this study, no time limit was set; however, previous research has found affective empathy predicts affect recognition accuracy when exposed to stimuli briefly, whereas cognitive empathy has a greater efficacy when exposed to stimuli for longer (Besel & Yuille, 2013). It is not possible to know how long each participant spent examining each picture and, as such, should this study be repeated, controlling these elements would be beneficial.

The results of this second part of the study have thus far shown support for the belief that the empathic foundations of counselling psychology afford greater detection of gelotophobe facial affect. It has examined the causal chain, finding CP participants identified significantly more correct facial emotions of gelotophobes, that they had a higher level of cognitive empathy and that there was a positive correlation between cognitive empathy and number of correct emotions identified; no such link was found for affective empathy. In examining this further mediation analysis was undertaken examining whether empathy mediated the groups' ability to identify correct emotions. The PO group was excluded from this analysis as the previous findings had found the differences in cognitive empathy, and the correct number of emotions identified, between the PO group and the CP and NP groups were non-significant. Further to this, only cognitive empathy was examined, as explorations of affective empathy were also found as non-significant. The findings, however, were mixed and not in keeping with the linear regression. There was a significant relationship on path *a* between belonging to the CP or NP group and the level of cognitive empathy, and on path *c* there was a significant relationship between group membership and number of correct

emotions identified. However, on path *b* the relationship between cognitive empathy and correct number of emotions identified was non-significant. Thus, the mediation analysis indicated cognitive empathy did not mediate the relationship between group membership and the correct number of emotions being identified.

The path *b* findings are at odds with the linear regression analysis of participants' level of cognitive empathy relating to the number of correct emotions identified. The reason is not clear why there might be this divergence in results between the mediation and linear regression. The linear regression model, although significant, only explained 2.9% of the variance in identifying the correct emotion. As such, this indicates other factors were also contributing to the model, although expected for a complex intersubjective process like facial affect recognition, it could be the impact of participant group was also contributing, in conjunction with differences in sample size. In the linear regression the relationship between all participants' cognitive empathy and number of correct emotions identified was examined, whereas the PO group was excluded from the mediation analysis. Moreover, as *X* was a dichotomous variable within the mediation consisting of the CP and NP groups, *c* was calculated by the difference between group means on *Y* (Hayes, 2018), thus impacting on the sample size. The sample size of the mediation was reduced to 91 by excluding the PO group, but this is still above the 68 participants required by the power analysis. It is, however, still a relatively small sample. At the present time the null hypothesis is accepted that cognitive empathy did not mediate the relationship between group membership and ability to identify correct emotions. It would be interesting, however, to see whether the same pattern persisted if this study were repeated with a larger sample, as CP participants identified significantly more correct facial affect, CP participants had a higher level of cognitive empathy, and there was a positive correlation between cognitive empathy and number of correct emotions when examined for all participants.

6.2 Limitations of the Present Study and Future Research

The use of screenshots in this study meant the metacommunication was limited. Whilst this has the benefit of affording isolation to facial emotional recognition, it also has some shortcomings. Previous research has found that individuals with gelotophobia tend to have idiosyncratic body movements. Titze (1996) referred to these body movements as the 'Pinocchio Complex':

> Pinocchio … was a marionette or puppet made of wood. In the physical sphere, many emotions manifest themselves in our muscles. We communicate by the way we carry and present ourselves. When fear is experienced, every being gets stiff and develops muscular tension. (p.1)

As such, if this study were to be undertaken again, the use of full video clips of gelotophobes responding to expressions of joy, with richer metacommunication, may give participants more information on which to base their perceptions and, as such, more people with the fear of being laughed at could be identified, as well as it being more likely that there would be a correct identification of their emotional state.

A forced choice method was used within this study in gaining participants' perceptions of emotions in the emotional stimuli. This method has been criticised as it could possibly artificially force agreement (Russel, 1993). Frank and Stennett (2001), however, when examining this method with facial expressions and the six basic emotions, an option was added for 'none of these terms are correct' and found there was no significant impact on the number of correct answers.

Undertaking the FACS coding in this study afforded identifying the emotional stimuli displaying universal emotions. As such, when examining whether participants were able to choose the correct emotion, it excluded the expressions that did not meet the FACS criteria of

universal emotions. However, the expressions that did not meet criteria were included when examining overall perception of gelotophobes' and non-gelotophobes' emotions, rather than whether it was correct. This was done to examine whether participants perceived non-gelotophobe stimuli differently from the gelotophobe stimuli when responding to joy. Therefore, although the distributions give an indication there was something different happening between groups, the findings are limited for this aspect. For example, if someone were trying to mask socially unacceptable emotions, they may display non-Duchenne smiles or a 'nervous smile' and, as such, this information would not be picked up on in the present study. If this study was to be repeated, it would be useful to have an 'other' option which includes space for qualitative data, recording participants' perceptions for this aspect in their own words which would give richer information for this aspect of the study.

Moreover, the present study examined perceptions of outward displays of facial affect of individuals and, as such, a limitation of this study is that the complex individual internal subjective experiences, and understandings, have not been explored. In the research field of gelotophobia, the voice of individuals with the heightened fear of being laughed at is missing. Going forward there is a need for greater focus on qualitative research. An innovative research method would be to ask individuals with the heightened fear of being laughed at to keep a diary of their experiences, giving greater insight into their internal and external worlds. This could also be undertaken to compare different groups that have shown higher incidents of gelotophobia, such as individuals with EUPD or *hf*ASD, thus affording an exploration as to whether their experience of having the heightened fear of being laughed at is more nuanced across groups. Furthermore, undertaking interviews with a focus on life span would allow a qualitative exploration of the themes present in the development of gelotophobia and afford a richer understanding of precipitating, maintaining, and protective factors.

6.3 Conclusion

This was the first research to find gelotophobes are perceived by others to have significantly lower counts of happiness and significantly higher counts of contempt when responding to expressions of joy. This could have implications for successful interpersonal interactions, especially as others found it more difficult to correctly identify gelotophobes' emotions reacting to joy and were unable to correctly identify gelotophobes even after being made aware some of the individuals in the emotional stimuli had gelotophobia.

This study has also given, for the first time, an indication that there may be another factor within the micro level of the development of gelotophobia as participants were not able to correctly spot the emotion of gelotophobes. As such, if social partners cannot identify the correct emotion of gelotophobes in 'teasing' or 'banter' situations, social partners' empathic responses would be inhibited not recognising gelotophobes' discomfort, thus leading to more 'teasing' and more unhelpful avoidant behaviour from gelotophobes. This, therefore, is an extra factor in the development and maintenance of gelotophobia. As such, it further highlights that gelotophobia does not just originate within an individual but rather in a system. This, then, also has implications for therapeutic interventions for gelotophobia in respect of teaching individuals how to communicate emotions. Moreover, there is a need to propagate further the systemic nature of gelotophobia, and that it exists on a continuum, that we all have a level of fear of being laughed at, to combat possible stigma.

This research also found, for the first time, participants were not able to spot the presence of gelotophobia within individuals responding to expressions of joy, which further supports the belief there is another factor in the micro level of development of gelotophobia, of others not being able to identify gelotophobes' discomfort. Moreover, it also has implications for clinical practice, given two-thirds of the participants were from a psychology background. If psychologists are unable to identify the presence of gelotophobia, a reassuring

smile or laugh in a therapy session can have unforeseen implications and fracture the therapeutic relationship. This highlights further the need for greater awareness, within psychology, of individuals with the heightened fear of being laughed at. If this were incorporated within the assessment stage, thus helping to inform psychological formulations, it could not only better inform the direction of therapy but also be beneficial to the building of the therapeutic relationship.

Although CP participants were more able to spot the correct gelotophobe emotions in comparison to the NP participants, the ability to spot correct emotions for gelotophobes significantly dropped for all groups. This also has implications for clinical practice and highlights the greater need for exploration of patients' metacommunication, especially for incongruent facial affect within therapeutic settings, rather than assuming an emotion is correctly being decoded, especially as all the emotions used within the analysis of correct emotions were universal emotions. It also raises the possibility that therapists struggle to identify incongruent affect and that there is a need for more research in this area.

Finally, this was the first research to examine whether the empathic underpinning of counselling psychology may afford greater detection of correct emotions. This study found affective empathy was not a predictive factor in correct emotions and there were no differences in affective empathy between participant groups. At first glance, however, the findings for cognitive empathy appeared to support the belief that the empathic underpinning of counselling psychology may be affording greater detection of correct emotions. CP participants identified more correct emotions of gelotophobes than NP; in addition, CP participants had higher levels of cognitive empathy than NP, although the differences with PO were non-significant; and, moreover, there was also a positive correlation between cognitive empathy and number of emotions identified. The mediation analysis, however, casts doubt on this as it found cognitive empathy did not mediate the relationship between

group membership and the number of correct emotions identified. It is difficult to draw conclusions regarding the relationship between cognitive empathy and identifying emotions from the present study given its conflicting findings and this aspect of the study would benefit from being repeated with a larger sample. Were it to be the case that person-centred training was facilitating greater cognitive empathy and, in turn, greater ability to identify facial affect, it could have implications for the content of training for numerous caring professions, as well as for therapeutic practice.

Chapter 7 Critical Appraisal

The aim of this section is to undertake a critical appraisal of my development and research process. I will start with the initial point of developing a research area of interest before moving on to examine other salient aspects of the study and some of the conflicts I encountered along the way. Finally, I will reflect on myself as a researcher and my development across the training process.

7.1 Development of research project

The need to be flexible and adapt to change was evident from the outset of this research process. Initially, the university had lined up potential supervisors and suggestions of research projects. One of the research projects suggested at the time focused on perceptions of pain moving from acute to chronic pain. I started developing a research idea in this area and as someone who experiences chronic pain, it was very much an area of interest. After meeting with the potential supervisor, I developed an idea further and submitted my expression of interest form. The university, however, undertook a review of the supervisor's capacity and unfortunately it was deemed that my supervisor was not able to continue. As such, it was necessary to develop another research project. This was a difficult and frustrating process after investing in the previous project. The following week, however, I was emailed another possible project which encompassed facial coding and gelotophobia. The prospect of using FACS, devised by Paul Ekman, was something that initially grabbed my interest as I was aware of his work from my MSc study. Further to this, metacommunication was of interest to me and I had previously read around this area in respects to its use and its impact on therapy.

In the initial meeting with my supervisor, she outlined I would need to train and become qualified in FACS to be able to undertake the research project. This was something I was quite excited by as I thought it would be beneficial for my clinical practice and further my professional development. At the time, my supervisor did warn me that the training for

this coding method was quite involved and would require a lot of hard work and commitment on top of my university assignments, placement, and research workload.

In starting to read around gelotophobia, I quickly realised that my supervisor had either carried out a large body of the research or her former colleagues had. Having someone with such a large knowledge in the area was beneficial but also came with some difficulties. That is, in terms of carrying out any critical analysis of previous research when undertaking the literature review, I was mindful of the need to take a neutral stance. This was made easier as the research undertaken had been robust and there had been a good amount of evidence found in clinical and non-clinical populations and in different countries and cultures. I soon realised there was a need for me to take ownership of my research and put my own stamp on it as well. The original title for the research was "utilising emotion specific ANS activity to understand the misperception of joy as contempt" with the suggestion of using a selection of videos clips of pre-screened gelotophobes and non-gelotophobes responding to joyful emotions that would be coded with the Facial Action Coding System. There would be two groups, counselling and non-counselling psychologists, who would be shown video clips along with rating scales relating to the perception of the emotion expression observed. The aim would be to investigate a) impact of the group; b) impact of gelotophobia on facial expression; c) impact of the group on the ability to recognise the facial expressions of emotion for gelotophobes and non-gelotophobes.

This suggestion was made with the assumption that for counselling psychologists to be able to identify their patients' emotions, it would facilitate a more empathic relationship. In taking the project further, I developed the idea around empathy. In doing this, I wanted to examine the causal chain further by examining the impact of group on empathy levels and testing the assumption regarding the link between empathy and the ability to identify facial expressions of affect. However, I did not appreciate how much work would be involved in

terms of adding another aspect of reading and literature searches into the study. Whilst gaining more knowledge in this area was interesting, in hindsight it did substantially increase the work involved.

7.2 FACS Training

The FACS training is a manualised self-instructional approach which necessitates reading the FACS manual and practicing coding various pictures and videos; the completion of FACS training is deemed by passing a test. The training process was a bigger challenge than I originally perceived. I tried to set some time aside each week to work on the FACS training, however at first, I found myself procrastinating and would often prioritise other university work. As such, I decided I needed to be far more proactive with the training and started breaking it down and setting myself small goals to hit each week. On the FACS training website they state that on average it takes a person up to 100 hours of training to pass the FACS exam. This was really challenging and at first, I did not appreciate what a big task it is to find an extra 100 hours within a busy training schedule. I feel my intermittent approach at first, due to other time demands, meant the time it took to pass the qualification increased.

My research supervisor had procured some videos from a previous research project which featured gelotophobes and non-gelotophobes undertaking an emotional elicitation task. The participants in the previous study had consented for their videos to be used. These videos seemed ideal as they had been filmed in a standard interview setting across all participants and were filmed using a peephole camera thus, they were not aware of the camera's presence at the time. It was planned for some undergraduate students to help with coding, as coding videos would not only be a large undertaking, but it would also increase the validity of my study. A training week was arranged with the undergraduates which consisted of them and myself working through the manual together which was facilitated by my supervisor.

However, by the end of the week, none of us were at a level needed to complete the FACS qualification and therefore we decided we would all have to carry on studying individually to work towards the qualification. By the time I had completed my FACS qualification however, none of the undergraduate students had completed their qualification and their focus had shifted on to their exams, thus they did not have the capacity to proceed. At this point, I had started to fully understand the complexity of being able to code all the videos and I reflected that a different approach may be needed. As such, after a discussion with my supervisor, I decided to tweak my method and take screenshots of the videos and code them myself with my supervisor acting as a second coder. Having to change my proposed approach was really frustrating at the time but what I learnt from this process is there is a need to be flexible and adapt when undertaking research and there can be different ways to achieve the same goal whilst being true to your research assumptions. Taking this approach afforded me the ability to carry out the same research, albeit with the one difference of it eliminating other aspects of metacommunication other than the facial expression. I was mindful that this would be partly a limitation of my study (no longer having the other aspects of metacommunication), however, I was also aware that it made it more focused in terms of what was being measured and furthermore, it was more in keeping with other research methods in facial affect. It also highlighted to me the need to be reflective of not only how these decisions impact on the study but also how it impacts on me. I realised it was important to practice what I preach to my patients when encountering an issue with the research and not to catastrophise and rather to take a more solution focused approach. This approach was more realistic, however I was still aware of what a large amount of work there would be involved, as there were 88 screenshots in total and coding each one tended to take me at least 1 hour. This again felt a little overwhelming, given the other pressures of the professional doctorate in terms of assignment deadlines and the need to gain clinical hours on placement too, let

alone all the other aspects of the research which I needed to do such as: setting up an online platform, recruiting, analysis and reading around the subject. I found that, often, I would prioritise other aspects of the course over the research as they had more pressing deadlines. In the second year of the professional doctorate, the number of hours that was needed to complete the year was substantially raised and as such, I doubled the number of days I was on placement. I was mindful that for each APR, I was setting timelines for myself which I was not hitting, and which was impacting on my anxiety levels and ironically making me avoidant in engaging with the research. This was something I needed to address and make more time for my research and as with the FACS training, I decided to break things down and set myself some goals for each week with the coding.

After completing the coding, my research supervisor then undertook the second coding and following this I calculated the KAPPA coefficient for each screenshot, it was at this point that I realised there was some large discrepancies between some of our coding. This was something I could not be precious about and there was a need to be emotionally detached and see it from a research point of view. As such, we followed the protocols outlined by Ekman and we re-examined the coding and referred to the manual, it was difficult for me to accept on a few occasions regarding my perception of the coding but after referring to the manual, I realised some of my coding needed adjusting. In hindsight, this is to be expected as there is a large discrepancy in experience and knowledge between me and my supervisor and more importantly it was about creating a piece of reliable research.

7.3 Researching Gelotophobia Heightened Fear of Being Laughed at

In studying a relatively new aspect of psychology in respect of my clinical practice, I perceived myself as encountering some ‘unconscious incompetence’. I felt mental health professionals tended to be quite quick to be dismissive to tell me this is just Social Anxiety, ASD, or most often the reply was “don’t we all have the fear of being laughed at”. On

reflection, I feel this is natural for individuals to ask questions for an area of knowledge they might not have heard of before and to have a critical analysis approach is healthy. I feel in hindsight, that such comments may have triggered my own underlying beliefs of feeling not good enough. I found myself being quite self-depreciating and sometimes almost being dismissive at times of gelotophobia as a defence. This was something I became conscious of and was able to be reflective of my actions, thus I was able to adjust my thought process by being mindful of where these feelings were originating from and started having more confidence in my own research. This was reinforced with the more reading I did and I came to fully appreciate the amount of research that had already been undertaken. I also realised the need for me to be more confident in talking about gelotophobia as it will not be possible to persuade therapists to be more conscious of gelotophobia and to incorporate it into formulations when appropriate if I am not fully invested in it myself.

As a counselling psychologist, I have found myself quite conflicted at times. There is a movement amongst some counselling psychologists to not use any diagnostic terms e.g., Bury and Stauss, (2006) …" At its core, counselling psychologists privileges respect for the personal subjective experience of the client over and above notions of diagnosis, assessments, and treatment" …(P113). However, as someone who works in secondary care in the NHS, I am also aware of the benefit of having a shared language with other mental health professionals. In terms of being a small part of increasing the knowledge and visibility of another possible 'diagnosis', or trait of a diagnosis, I am mindful this can have benefits for clients in terms of clinicians being more aware of their difficulties, especially as this appears to be an area that is under reported due to clients' fears of it being trivial. Throughout writing my thesis, I often use the term 'gelotophobe' rather than writing 'a person with a heightened fear of being laughed at or an individual with gelotophobia'. Although the use of the term 'gelotophobe' is common practice within the gelotophobia research, it did not sit well with

me. This was something I felt was quite incongruent for me as a counselling psychologist that works from a humanistic perspective. I was not only mindful that referring to someone as a "gelotophobe" could be stigmatising but also from a mental health recovery point of view, using such a label could lead to other valuable aspects of an individual's presentation, including positive aspects, being overlooked should professionals be primed by such a label. In the present research, it was done to make the writing process more manageable/readable as there are two aspects of my study incorporating individuals with a heightened fear of being laughed at, i.e., the emotional stimulus from a previous study which incorporated people with a heightened fear of being laughed at, as well as assessing the participants in the present study for having a heightened fear of being laughed at. Thus, not using the term gelotophobia would have meant it would have lacked clarity. I do feel, however, upon publishing any work whilst it would be written in a similar fashion for clarity purposes, it needs to be framed by a caveat regarding the terminology.

In this study, I refer to the possibility of gelotophobia being incorporated into the DSM as traits of other conditions. Once again, this is in conflict with the philosophy of counselling psychology. In fact, Carl Rogers himself questioned the value of diagnosis as it puts the locus of control outside of the client and it is the client that has the greater potential to fully understand their own feelings, thoughts, and behaviours and furthermore, diagnosis really happens in therapy by the client themselves being able to recognise the inadequacies of the old ways of perceiving, experiencing and behaving (Rogers, 1951). The issue of labels and gelotophobia was highlighted to me by a prominent counselling psychologist whilst displaying my research poster at the BPS DCoP conference. She approached me and said, "I don't believe in labels, I don't think any client should be given a label, just work with the presenting difficulties." However, she then went on to tell me she was working with someone at that point in time that had "this type of issue". This highlighted for me the need to strike a

balance between not wanting to stigmatise individuals, with the need for professionals to have a shared language that can be shared quickly and succinctly. In the NHS, I see the daily value of a shared language, but I also see at times that some clients' issues can become needlessly medicalised. I was able to square this with my own philosophy in my way of working by understanding that a good psychologist would undertake a formulation and even if a client were to receive a diagnosis, in the future, of gelotophobia would just be the starting point. In conjunction with this, by using the term gelotophobia it tends to raise awareness as it will often invite people to ask what it is.

7.4 Developing Online Platform

The need to be accepting and adapt to new circumstances was once again highlighted to me when I downloaded the data from Qualtrics, as the numeric values given to the questionnaires were wrong within Qualtrics e.g., when it should have been giving something a value such as 1, it would have been giving it 5. I knew logically at the time this should be a 'fixable' issue and I would need to recode the data whilst recording this procedure within my thesis. At the time, however, this was stressful and added a lot more work than I planned for at the beginning. Reflecting on this, I felt that maybe I moved to disseminate the research a little too quickly and maybe, if I had checked Qualtrics a little closer beforehand it may have been a case of clicking a couple of boxes rather than a long-drawn-out process of recoding the data in SPSS. Factoring in time to resolve unexpected issues is something that I became mindful of when planning my research as there seemed to some issues that crop up along the way and so I became mindful of making time in case these issues that need to be managed along the way. Moreover, prior to starting the research, I did not think about all the different skills that I needed to gain e.g., using Qualtrics software for the purposes of hosting the research online. I attended a training lecture at university regarding this software, however, I underestimated the time it would take to get to know the software. As not only did I need to

be able to navigate the software, I also needed to be able to construct my research within it and most importantly, extract the data from it too, whilst at the same time keeping in-line with ethical standards. In doing this, I decided to add a withdraw button on every page of Qualtrics, this was something I did not realise would turn out to such a large piece of work. I used some computer code which enabled me to code Qualtrics to add this feature which required me to learn some new skills. On reflection, I should have utilised more resources available at the university, such as the technicians which would have been more time efficient. I tend to be quite autonomous when working and this may have slowed me down at times, whereas my supervisor or others could have pointed me in the right direction at times. I think it probably comes from a position of not feeling good enough and not wanting to feel like I am bothering people when I am asking questions, thus I tend to be avoidant. As such, I need to be more mindful of what is driving my decision making and behaviour, so I undertake research in a more efficient manner.

7.5 Development as a Researcher

Heading into the first year, I think I underestimated the demands of the research element of the course. To start with, I was relatively confident in this area as I had previously completed an MSc in Evolutionary Psychology at the University of Liverpool which included a taught module on statistics and had given me experience of undertaking, what I had previously thought of, as a relatively large quantitative thesis. It had given me some insight in terms of managing my time between the taught side of a course and research demands. Also, following finishing my MSc course, I was employed in assistant psychologist roles that included undertaking some quite extensive service evaluations which included quantitative and qualitative approaches and meant I managed to retain a lot of the skills and knowledge from my master's course. It also gave me experience in designing and presenting research, and in turn, presenting a research poster for the first time at the British and Irish Group for

the Study of Personality Disorder (BIGSPD) conference as well as being published for the first time, albeit in a journal with a low impact factor. Once starting the research module, however, I soon realised what is expected at doctorate level was far more demanding. What was useful however, was being able to reflect on what had helped previously when the workload had felt overwhelming, in terms of breaking down the tasks needed, scheduling time for each task and compartmentalising what was needed to avoid snowballing. I feel that as I have worked my way through doctorate training, I have become more aware of things I still need to learn and develop, as much as the areas in which I have gained new skills. I feel that becoming aware of areas I need to develop is just as important as the new skills and knowledge I have gained and moreover, being a reflective scientific practitioner has helped me immensely in this process.

Chapter 8 Example of Journal Paper

Example prepared for Counselling Psychology Review: Must be under 5000 words in total: including references and abstract; Abstract no more than 250 words; referencing style APA. https://www.bps.org.uk/publications/counselling-psychology-review

Can the Empathic Underpinning of Counselling Psychologists Detect Gelotophobic Responses to Expressions of Joy Above Non-psychologists and Psychology Other Participants?

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Abstract

This study aimed to investigate counselling psychologists' (CP), non-psychologists' (NP), and psychology other (PO) participants' accuracy in decoding emotional states being signalled by gelotophobes responding to expressions of joy and whether empathy is a predictive factor in the facial recognition. A quasi-experimental design, employing a quantitative method. Participants were shown emotional stimulus depicting gelotophobes and non-gelotophobes in a standardised interview setting and asked to identify seven basic emotions. The emotional stimulus participants were pre-screened, utilising the GELOPH <15> to establish the presence of gelotophobia and pre-coded using facial action coding system (FACS). Participants completed the Interpersonal Reactivity Index (IRI) and The Empathy Quotient (EQ) questionnaires to discern affective and cognitive empathy. CP participants identified significantly more correct gelotophobe emotions than NP participants although there was a non-significant difference between CP and PO, and NP and PO participants. CP participants had significantly higher cognitive empathy than NP participants and there was a non-significant difference between CP and PO participants. There was a non-significant difference between all groups for affective empathy. The findings indicate the humanistic foundations of counselling psychology may be facilitating the development of cognitive empathy. The presence of gelotophobia, however, significantly impacted on the accuracy levels of identifying facial affect for all groups.

Key words: gelotophobia, counselling psychology, cognitive empathy, affective empathy, facial affect

In a typical population, it tends to be assumed that a smile or the vocalisation of laughter will be positively inferred. Laughter and smiling, however, can be incorporated in ridicule and shame (Ruch et al., 2013). It is postulated that repeated traumatic experiences of being ridiculed via laughter leads to the heightened fear of being the object of laughter (Ruch & Proyer, 2008). This phenomenon, known as gelotophobia, the fear of being laughed at (Titze, 2009), exists on a spectrum between no, to extreme gelotophobia (Ruch, & Proyer, 2008). Gelotophobes have a negative attribution bias skewing appraisal of laughter, thus the dichotomous nature of laughter is problematic (Platt, 2008; Ruch, 2009). This negatively affects interpersonal interactions for gelotophobes, hindering them from forming and maintaining relationships (Platt & Forabosco, 2014).

In understanding the precipitating factors of gelotophobia, originally a theoretical causal chain model of putative causes and consequences throughout lifespan was developed. The original linear model was developed into a more systemic model operating across many levels incorporating etiological moderating factors. A salient addition to the developmental model of gelotophobia was systemic feedback loops (Ruch, Hofmann et al., 2014). Henri Bergson (1900) first suggested individuals who are the object of ridicule and scorn via laughter take on the appearance of wooden puppets or marionettes. Individuals in these situations tend to emit nonverbal clues that indicate their affective state of feeling uneasy. In these situations, it is suggested that emotional panic leads to muscular tension and stiffness and presents as individuals appearing not to move in a typical manner as they try deliberately to control their body movements. This “wooden appearance” has been referred to as the “Pinocchio-Complex” (Titze, 1995). As such, individuals expecting to be the recipient of ridicule adjust their mannerisms accordingly in a maladaptive effort to cope however this manner is perceived as atypical by others leading to further ridicule, thus consequences and elicitors become looped (Ruch, Hofmann et al., 2014).

Gelotophobia operates at a personal, interpersonal, and social level and as such, should be incorporated into psychological interventions (Platt et al., 2014). Metacommunication within interpersonal interactions incorporates encoding and decoding of facial expressions (Zuckerman et al., 1975), thus, the ability to interpret signals of communication is of salient importance for successful social and therapeutic interactions. Facial expressions communicate an emotional state to others via an encoding face and decoding brain which affords individuals the ability to infer emotional states and respond accordingly (Smith, Cottrell et al., 2005). Typically, this is arranged into seven universal

expressions of emotion: fear, joy, contempt, sadness, disgust, anger, and surprise (Ekman, 1992; Ekman & Friesen, 1975). Individuals have autonomy over facial expressions, however, allowing emotions to be masked or faked thus facial expressions cannot merely be considered innate expressions of emotion (Ekman et al., 1981).

It is postulated that facial expressions of emotion have specific facial configurations related to different emotions. For example, the emotion of joy tends to be accompanied by a facial configuration called the Duchenne display (Ekman et al., 1990) which incorporates the joint and symmetric contraction of the zygomatic major and orbicularis oculi muscles, pulling the lip corners back and upwards, raising the cheeks and compressing the eyelids resulting in eye wrinkles (Ekman et al., 1987). Whereas non-Duchenne smiles do not activate the orbicularis oculi muscle and tend to serve a social function such as concealment of a negative emotion (Surakka & Hietanen, 1998). A contempt smile incorporates unilateral action of the buccinators muscle (Ruch et al., 2013). This is of relevance to gelotophobes as they tend to have higher incidents of contempt displays and express less joy when responding to expressions of joy (Hofmann et al., 2015).

The Role of Empathy

Understanding the role of empathy across health professions has gained in popularity since the 1950s when Carl Rogers postulated it was necessary for successful outcomes in psychotherapy (Gladstein, 1983). A plethora of research regarding the concept of empathy has been undertaken in many disciplines with conflicting definitions (Gery et al., 2009). There is consensus within empathy research, however, that empathy is multifaceted encompassing subjective experience, perspective taking and affective cues invoking emotional states; be it for others or self-orientated (Davis, 1983; Gery et al., 2009).

The two aspects of empathy this study will concern itself with are that of cognitive and affective empathy. Affective empathy is associated with feeling the emotion of another but with compassion (Besel & Yuille, 2010): this is postulated to be an automated process where someone catches feelings from another, in this sense emotions can be seen as contagious. Cognitive empathy relates to the ability to imaginatively understand another's feelings, thoughts, and actions but does not have to feel the emotion of the other, in this sense understanding another's emotions is likened to mindreading. These factors can operate independently (Baron-Cohen & Wheelwright, 2004) and differentially relate to facial

expression recognition (Besel & Yuille, 2010) although they can also operate together as posited in the dual action model of empathy (Heyes, 2018).

An association between the recognition of facial affect ability and empathy has been found across numerous studies whereby the higher levels of empathy correlated with greater facial affect recognition ability (Carr & Lutjemeier, 2005; Besel & Yuille, 2010).

Implications for Counselling Psychology

The foundations of counselling psychology in the United Kingdom are built upon American humanistic values (Orlans & Van Scoyoc, 2008) of the client centred approach outlined by Carl Rogers (1951). Rogers postulated there are three core conditions necessary for therapeutic change: Empathy, congruence, and unconditional positive regard. Thus, therapists need to be able to communicate empathic understanding and unconditional positive regard to the client, for therapy to be successful. One of the most important ways of communicating is by facial expression (Bekkering et al., 2000) and interpreting these emotional expressions is salient too in communication (Ricciardi et al., 2017). At present, there is still a lack of awareness regarding gelotophobia despite research finding its presence across cultures, nationalities and in clinical and non-clinical populations (Proyer et al., 2009). In clinical practice, there is also a lack of awareness of gelotophobia as patients tend to under report it and it is not included in any diagnostic manuals (Platt et al., 2016). The presence of gelotophobia therefore could have a significant impact on the success of therapy, as metacommunication issues can fracture the therapeutic relationship.

Research Aims

As the ability of the therapist to communicate empathic understanding and unconditional positive regard to the client is believed to predict successful outcomes in counselling psychology, the ability of counselling psychologists to differentiate gelotophobes' from non-gelotophobes' responses to joyful emotions are of salient importance. As such, this study will investigate counselling psychologists' and non-counselling psychologists' perceptions of emotional states being signalled by gelotophobes' and non-gelotophobes' responding expressions of joy and their empathy levels.

Hypotheses

H_1: CP participants will correctly identify more gelotophobe emotional states being displayed correctly than NP and PO participants.

H_2: CP participants will have a higher level of cognitive empathy than NP and PO participants.
H_3: CP participants will have a higher level of affective empathy than NP and PO participants.

Method

Sample

Altogether 150 participants were recruited. 132 participants completed all aspects of the study, with 12 participants completing the demographics IRI and EQ questionnaires, but not the emotional stimuli aspect of the study. There were a further 6 participants who withdrew from the study.

The occupation of the participants was (44 CP, 54 NP, and 46 PO). The CP sample consisted of 44 English-speaking adults (5 Males, 39 Females), there were 8 fully qualified CP's and 36 trainees that had completed the humanistic aspect of the CP doctorate training. The ethnicity of CP participants was (26 white British, 6 Asian British, 1 African Caribbean British, 7 white other, 1 Arabic, 3 other). The NP sample consisted of 54 English-speaking adults (10 males, 44 females). The ethnicity of NP participants was (46 white British, 2 Asian British, 1 African Caribbean British, 5 white other). The psychology other (PO) sample consisted of 46 English-speaking adults (5 males, 40 females, 1 non-binary). There was a myriad of occupations and qualifications levels for the PO group although it did include 5 Clinical Psychologists, 3 Forensic Psychologists, 3 Education psychologists, 3 Research psychologists and 2 PhD psychologists but also included CBT therapists, trainees, psychology students. The ethnicity of PO participants was (26 white British, 2 Asian British, 1 mixed heritage British, 13 white other, 3 other). The age of participants was recorded via age range rather than specific age; this was to limit the impact of the demographic questions on participant anonymity. As such, no mean ages are available to present, the breakdown of age ranges across groups is presented in Table 1.

Table 1

Displays Participant Age Range Across Groups

		CP	NP	PO	Total
Age	18-24	2	1	8	11
	25-34	18	13	19	50
	35-44	17	16	9	42

45-44	5	20	5	30
55-64	2	4	4	10
65-74	0	0	1	1

Note. CP = counselling psychology, NP = non-psychology, PO = psychology other.

Recruitment

The recruitment of participants was disseminated across a number of different platforms. Firstly, direct, and intermediate recruitment was utilised for CP participants, in contacting trainee counselling psychologists on the University of Wolverhampton Professional Doctorate in Counselling Psychology course, as well as contacting six qualified Counselling Psychologists already known to the author. Secondly, participants were recruited across social media. Thirdly, all university Counselling Psychology departments in the United Kingdom, that offer the Professional Doctorate in Counselling Psychology, were contacted via email, asking them to distribute the research amongst their Counselling Psychologists and doctoral trainees, with the provision of the trainees having completed a humanistic module. NP and PO participants were recruited from the wider population, with an effort made to target similar age and gender demographics to the CP participants. Intermediate recruiting was used and subsequently asked to snowball the research to relevant potential participants. Once more, social media platforms were used for the NP participants.

Materials

The emotional stimulus used in this study was appropriated from a prior study (Hofmann et al., 2015) where participants were clandestinely filmed in a standard interview setting undertaking an emotion elicitation. The video clips featured 17 participants pre-screened with the GELOPH <15> to establish the presence of gelotophobia. 10 of the 17 individuals featuring in the video clips had gelotophobia ranging from slight gelotophobia to extreme gelotophobia and for 9 individuals there was no presence of gelotophobia.

An emotional stimuli photo was generated via a screenshot of the appropriated study's video clips. The video clips were edited using Microsoft Movie Maker for Windows 10 and a photo (screenshot) of each video was taken at the apex of an Action Unit (AU) displayed post 30 seconds of the elicitation question. This period of time was chosen as it gave enough time

for the AU to reach the apex and accounted for the variation of time needed for different emotional emblem displays.

To operationalise the emotional stimulus, the screenshots were coded with facial action coding system (FACS). FACS is an anatomically based, comprehensive and objective technique for measuring all observable facial movement. FACS allows for measurement of the timing of a facial movement, its symmetry and intensity and its degree of irregularity of onset, apex or offset (Ekman et al., 2002). This technique afforded the coding of specific facial muscles to determine the facial expression being displayed (Ekman & Friesen et al., 2002), thus enabling a comparison between the emotion being displayed in the emotional stimuli and participants' perception of the facial expression displayed. The FACS coding of the emotional stimulus screenshots was undertaken by two certified coders. The overall KAPPA coefficient between coders was (.88). As such, this is above the .70 reliability index suggested by Ekman & Friesen et al. (2002).

Measures

The EQ (Lawrence et al., 2004) comprises 40 items to assess cognitive and social sides of empathy (a sample item is "People often tell me that I went too far in driving my point home in a discussion"). Answers are given on a four-point answer format (1 = ''strongly agree'' to 4 = ''strongly disagree''). Lawrence (et al., 2004) report high reliability coefficients (a = .84). Lawrence et al. (2004) conducted components analysis of the EQ questionnaire and showed reasonable communalities with loadings onto three factors: cognitive empathy, emotional reactivity, and social skills. Five questions have been shown suitable for the cognitive empathy subscale (25, 26, 44, 52, and 54) (Muncer & Ling, 2006). Only the cognitive empathy subscale was used in the present study. The Cronbach's alpha for the cognitive empathy was 0.79.

The IRI (Davis, 1983) is a 28 item widely used measure that assesses an individual's predilection towards empathy (a sample item is "I often have tender, concerned feelings for people less fortunate than me"). Answers are given on five-point answer format (1 = "Does not describe me well" to 5 = "Does describe me well"). IRI contains four, seven-item subscales each addressing subtypes of empathy. The present study, however, only used the Empathic Concern (EC) subtype as a measure of affective empathy; Davis (1983) reports high reliability coefficients for this subtype (a = .80).

Design

The study was a quasi-experimental design which consisted of three groups, Counselling Psychology (CP), non-psychology (NP), and psychology other (PO) participants. Participants were asked to complete an online emotion recognition task and two empathy questionnaires. The independent variables were: 1) participant's profession i.e., "Counselling Psychologist", "non-psychologist", and "psychology other" 2) the empathy questionnaire score i.e., the Interpersonal Reactivity Index (IRI) and Empathy Quotient (EQ) questionnaires. The dependent variable was the number of correct emotions identified.

Procedure

The online platform Qualtrics was used to host the emotional stimulus. All participants were given a definition of gelotophobia before starting. Following this participants were presented with the Empathy Quotient (EQ) and Interpersonal Reactivity Index (IRI) questionnaires. From here the emotional stimulus was presented and participants were given a forced choice of emotions: anger, sadness, joy, disgust, surprise, fear, or contempt. There were 5 photos from each of the 17 emotional stimuli, thus there was a total of 85 photos where participants were asked to judge the emotion.

Ethical considerations

Ethical approval was given by the University of Wolverhampton Ethics committee.

Results

H_1: Counselling Psychology (CP) Participants Will Identify More Gelotophobe Emotional States Being Displayed Correctly Than Non-Psychology (NP) Participants and Psychology Other Participants (PO).

In examining whether CP participants will identify more correct emotional states being displayed by gelotophobes than NP and PO, the unit of analysis was participants (N =132), the independent variable was participant group, which had three levels: CP, NP, and PO, and the dependent variable was the number of emotional states identified correctly for gelotophobes. A visual inspection of the correct emotional states for gelotophobes data (histogram, Appendix E) indicated the data were not normally distributed. A Shapiro-Wilk test of normality was computed, CP (p = .036), PO (p =.003), and NP (p =.126) and a skewness of CP -.826 (SE = .365), PO -1.235 (SE = .369), NP -.115 (SE = .340) and kurtosis

of CP .943 (*SE* = .717), PO 2.517 (*SE* = .724), NP .423 (*SE* = .668). Skewness and kurtosis were then divided by its *SE* to identify how far the sample data are different from the normal distribution; ±1.96 limits were considered as normally distributed. Skewness of CP= -2.26, PO=-3.35, NP= -.33; kurtosis of CP= 1.31, PO= 3.47, NP=.633 confirmed the data were not normally distributed. Thus, a Kruskal-Wallis test was used instead of a parametric one-way ANOVA.

A Kruskal-Wallis test showed there was a significant difference between groups (*H* (2) = 7.645, *p*= 0.22) in the number of correct gelotophobe emotional states identified. Post hoc pairwise comparisons were undertaken for 3 comparisons, thus the alpha threshold of .05 was Bonferroni corrected by dividing this value by 3 = .0167. The analysis found CP group (*Mdn* =14, *SD* = 3.95) was significantly different (*H* = 21.156, *SE* = 7.993, $p < .001$) to NP group (*Mdn* = 13, *SD* = 2.85). There was a non-significant difference (*H* = 4.015, *SE* = 8.045, *p* = .615) between NP group (*Md n* = 13, *SD* = 2.85) and PO group (*Mdn* = 13, *SD* = 3.12) and non-significant difference (*H* = 17.106, *SE* = 8.345, *p* = .040) between PO group (*Mdn* =13, *SD* =3.12) and CP group (*Mdn* = 14, *SD* = 3.95). The results indicate that CP participants were significantly better at identifying the emotional states of gelotophobes than NP participants, but the differences between the CP and PO participant groups, and PO and NP participants groups were non-significant.

***H_2: CP Participants Will Have a Higher Level of Cognitive Empathy Than NP and PO Participants*.**

In examining whether CP Participants had a higher level of cognitive empathy than NP and PO Participants, the unit of analysis was participants (*N* = 144), the independent variable was participant group, which had three levels: CP, NP, and PO, and the dependent variable was participants' cognitive empathy score (EQ score). A Shapiro-Wilk test of normality was computed for cognitive empathy, CP (*p* = .042), PO (*p* = .001) and NP (*p* = .152), and a skewness of CP -.095 (*SE* = .357), PO -.744 (*SE* = .350), NP -.099 (*SE* = .325) and kurtosis of CP -.895 (*SE* = .702.), PO -.411 (*SE* = .688), NP -.076 (*SE* = .639). Skewness and kurtosis were then divided by its *SE* to identify how far the sample data are different from the normal distribution; ±1.96 limits were considered as normally distributed. Skewness of CP = -1.27, PO = -2.12, NP = -0.30 and kurtosis of CP = -1.27, PO = 0.60, NP = -.12 confirmed the data were not normally distributed. Thus, a Kruskal-Wallis test was used instead of a parametric one-way ANOVA.

A Kruskal-Wallis test for cognitive empathy found a significant ($H(2) = 15.188$, $p = .001$) difference between participant groups. Post hoc pairwise comparisons were undertaken for 3 comparisons, thus the alpha threshold of .05 was Bonferroni corrected by dividing this value by 3 = .0167. The analysis found the CP group (*Mdn* = 8, *SD* = 2.25) was significantly different ($H = 32.009$, $SE = 8.300$, $p<.001$) to the NP group (*Mdn* = 5, *SD* = 2.23). There was a non-significant difference ($H = -13.080$, $SE = 8.723$, $p = .134$) between the CP group (*Mdn* = 8, *SD* = 2.25) and the PO group (*Mdn* = 7, *SD* = 2.04), and a non-significant difference ($H = 18.930$, $SE = 8.402$, $p = .024$) between NP group (*Mdn* = 5, *SD* = 2.23) and PO group (*Mdn* = 7, *SD* = 2.04). These results indicate CP participants had a higher level of cognitive empathy compared to NP participants, whereas there was a non-significant difference in the ability between the CP and PO groups and no difference in ability between the PO and NP groups.

H_3: CP Participants' Affective Empathy Will Be Higher Than NP and PO Participants.

In examining whether CP participants' affective empathy was higher than NP and PO participants, the unit of analysis was participants (N =144), the independent variable was participant group, which had three levels: CP, NP, and PO, and the dependent variable was the participants' affective empathy score (empathic concern). A visual inspection of the affective empathy data across occupation (histogram, Appendix F) indicated the data were not normally distributed. This was confirmed by a Shapiro-Wilk test of normality, CP ($p = .002$), PO ($p = .007$), and NP ($p = .027$), with a skewness of CP -1.088 ($SE = .357$), PO -1.157 ($SE = .350$), NP .024 ($SE = .325$) and kurtosis of CP 1.836 ($SE = .702$), PO 2.850 ($SE = .688$), NP -.983 ($SE = .639$). Skewness and kurtosis were then divided by its *SE* to identify how far the sample data are different from the normal distribution; ±1.96 limits were considered as normally distributed. Skewness of CP = -3.04, PO = -3.30, NP = .07 and kurtosis of CP = 2.61, PO = 4.14, NP = -1.53 confirmed the data were not normally distributed. Thus, a Kruskal-Wallis test was used instead of a parametric one-way ANOVA.

A Kruskal-Wallis test was calculated, which reported there was a non-significant ($H(2) = .200$, p = .948) difference in affective empathy scores across occupation: CP (*Mdn* = 22.5, SD = 3.11), NP (*Mdn* = 22, SD = 3.43) and PO (*Mdn* = 23, *SD* = 3.40), indicating there was no difference in affective empathy levels between CP, NP, and PO groups.

Discussion

This study used a quasi-experimental quantitative approach which investigated whether the empathic underpinnings of counselling psychology afforded greater ability, in comparison to non-psychologists, to identify the correct emotions of gelotophobes responding to expressions of joy. These findings showed on average CP participants did indeed identify more correct emotional states of the gelotophobes (in the emotional stimuli) compared to the NP, and CP participants had significantly higher levels of cognitive empathy than NP participants, but there were differences between NP and PO, and CP and PO were non-significant. There was no significant difference in affective empathy between groups.

Previous research has found that cognitive empathy is susceptible to development (Platt & Keller, 1994). Previous research with medical students has found empathy levels can be increased by teaching students to understand patients' concerns and feelings by incorporating metacommunication and Rogerian counselling skills into their practice (Ruiz-Moral et al., 2017). One study went further with physicians and investigated their ability to correctly identify facial affect before and after person centred training. They found an increase in empathy as well as an increase in ability to spot facial affect although they did also undertake some training in spotting facial expressions on emotion which may also be accounting for the change (Riess et al., 2012). It should be noted, however, there was no significant difference between groups for affective empathy. This is in keeping with some previous research which found affective empathy showed more limited development (Epstein & Street, 2011). It might also be ceiling effects are impacting on this aspect of the study, with all three groups scoring relatively high empathic concern.

These findings indicate counselling psychologists' person-centred routes may be affording greater cognitive empathy levels and in turn, affording greater ability in identifying the correct emotions. These findings initially appear to be contrary to previous research of Hutchison and Gerstein (2012). They found there was no significant difference between Counselling trainees and other undergraduate students in rating the emotion of individuals. The level of clinical experience of participants, however, may account for the difference in findings. This would be in keeping with cognitive empathy developing through person-centred experience rather than individuals with higher empathy self-selecting into empathic professions. Hutchison & Gerstein suggested their findings may be experiencing ceiling effect. Interestingly, in the present study, participants' average accuracy rate for the non-

gelotophobe emotional stimuli was at 86.76% when identifying the correct emotion, whereas participants' average accuracy rate for gelotophobe emotional stimuli was only 54.16%. If ceiling effects did impact previously, the presence of gelotophobes in the present study may be affording more opportunity for CP participants to demonstrate greater ability.

Although CP participants were more able to identify the correct facial emotions than the NP, when gelotophobia was present all groups were still way below what is expected of a typical population. This indicates the presence of gelotophobia has great potential to fracture the therapeutic relationship and thus there is a need to disseminate how gelotophobia presents. At present, there is still a lack of awareness regarding gelotophobia despite research across numerous populations (Proyer et al., 2009). Gelotophobes tend to have higher incidents of contempt displays and express less joy when responding to expressions of joy (Hofmann et al., 2015). This was witnessed within the emotional stimuli in the current study, with gelotophobes expressing more displays of contempt whereas, all the displays from non-gelotophobes were of being happy. Previous research has found that when basic emotions are compared, recognition accuracy was at its highest for happy expressions, both for closed-mouth and open-mouth displays of happiness (Tottenham et al., 2009). Although training in Counselling Psychology focuses upon the emotional process and encourages therapists to be reflective and attend to metacommunication, it pays little attention to understanding facial expressions (Hutchison & Gerstein, 2017). This research also witnessed that although operating from an empathic stance may be beneficial in respect of decoding emotions, when confronted with an atypical response to expressions of joy, it impacted on accuracy. As such, this indicates that in conjunction with humanistic training, further training in recognising facial affect would be beneficial for therapeutic relationships.

Conclusion

This research has found that CP participants did indeed have higher levels of cognitive empathy and greater accuracy in recognising facial affect of gelotophobes than NP although it should be noted there was no difference in affective empathy across groups. This indicates that humanistic foundations may be facilitating the development of cognitive empathy. Although the CP group were able to identify more correct emotions than NP, the presence of gelotophobia, and thus more atypical responses to expressions of joy, however, significantly impacted on the accuracy levels with accuracy levels way below a typical population for all groups. As such, this has indicated the need to further disseminate how

gelotophobia impacts on metacommunication, as well as the need for more focus on facial affect training to afford better therapeutic relationships.

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Appendices

Appendix A

Emotional stimuli: Detailed below are the participant codes, GELOPH <15> scores, followed by the GELOPH <15> classification for each individual.

1. Participant 32. G score = 1.2 (No gelotophobia)
2. Participant 34. G score = 1.4 (No gelotophobia)
3. Participant 37. G score = 2.6 (Slight gelotophobia)
4. Participant 48. G score = 1.2 (No gelotophobia)
5. Participant 63. G score = 3.0 (Marked gelotophobia)
6. Participant 65. G score = 1.2 (No gelotophobia)
7. Participant 73. G score = 1.2 (No gelotophobia)
8. Participant 76. G score = 2.6 (Slight gelotophobia)
9. Participant 83. G score = 2.5 (Slight gelotophobe)
10. Participant 98. G score = 3.0 (Marked gelotophobia)
11. Participant 99. G score = 3.5 (Extreme gelotophobia)
12. Participant 108. G score = 3.7 (Extreme gelotophobia)
13. Participant 97. G score = 1.2 (No gelotophobia)
14. Participant 82. G score = 1.6 (No gelotophobia)
15. Participant 84. G score = 1.2 (No gelotophobia)
16. Participant 86. G score = 1.4 (No gelotophobia)
17. Participant 90. G score = 3.5 (Extreme gelotophobia)

Appendix B

Figure 1

Letter of Approval from FEHW Ethics Committee

22nd February 2017

Trevor Flowers (Dr Tracey Platt & Dr Neil Morris)
University of Wolverhampton
FEHW

Dear Trevor Flowers (Dr Tracey Platt & Dr Neil Morris)

Re: If gelotophobes smile differently to non-gelotophobes during interviews, can the emphatic underpinning of counselling psychologists enable detection above non-counselling psychologist? submitted to the Chair Faculty of Education, Health and Wellbeing Ethics Sub-panel (Health Professions, Psychology, Social Care & Social Work)

Upon review by the Chair of the Ethics Sub-panel on 17th February 2017 your Resubmitted Research Proposal was passed and given full approval (**Code 1 - Pass**). You are free to continue with your study. We would like to wish you every success with the project.

Yours sincerely

H Paniagua
Dr. H. Paniagua PhD, MSc, BSc (Hons) Cert. Ed. RN RM
Chair – School Ethics Committee

Richard Darby
Dr Richard Darby PhD, BSc
Chair – Ethics Panel

Appendix C

Figure 1

The Faculty Ethics Panel Letter; Conditions for Approval

Date 11th January 2017

Trevor Flowers (Tracey Platt)
University of Wolverhampton
FEHW

Dear Trevor Flowers (Tracey Platt)

Re: If gelotophobes smile differently to non-gelotophobes during interviews, can the emphatic underpinning of counselling psychologists enable detection above non-counselling psychologist? submitted to The Faculty of Education, Health and Wellbeing Ethics Panel (Health Professions, Psychology, Social Work & Social Care)

The Faculty Ethics Panel (Health Professions, Psychology, Social Work & Social Care) has considered and reviewed your submission.

On review your Research Proposal was passed and given approval **Code 2 – Approved Subject to Conditions.** The conditions for Approval are below.

B. Resubmit for Chair's action with attachments. You will need to revise and re-submit your ethics application form to the Chair for re-review prior to full approval being granted. The revisions and changes required are listed below.

Required changes:

- Panel will need to see the attachments:
  Recruitment letters/Poster/flyers
  Information and consent forms
  Debrief form
  Any questionnaires given to participants
  Screen shots that give an idea of the videos to be used.
- Please include details of sample size.
- Clarify grouping and give an indication of how many years they will be trainees.
- Supervisor to oversee coding of video clips.

In your resubmission, please ensure you highlight any changes you have made to the ethics approval form. Also you **must provide a covering letter**, which should be the first page of the resubmitted ethical approval document. You should identify the code allocated, list the concerns raised by the ethics Panel and, following each point, give your responses to these concerns describing how you have changed your application. In the title of the resubmission email please state that this is a resubmission and indicate the code that the previous application received.

Students, please contact your supervisor for assistance with making amendments to your proposal. Supervisors, you must read through and check

the revised applications prior to resubmitting them to [redacted]

Please endeavour to re-submit within 2 months of receiving this letter or you submission may need to be reviewed as a new submission.

Best wishes in the future.

Yours sincerely

H Paniagua
Dr. H. Paniagua PhD, MSc, BSc (Hons) Cert. Ed. RN RM
Chair – Ethics Panel

Richard Darby
Dr Richard Darby PhD, BSc
Chair – Ethics Panel

Appendix D

NB: Emotional stimuli redacted to protect confidentiality.

Appendix E

Histograms for H_4 Counselling Psychology (CP) participants will identify more gelotophobe correct emotional states being displayed than Non-Psychology (NP) and Psychology Other (PO) participants are displayed below in Figures 1, 2, and 3.

Figure 1

Histogram Displays the Distribution of Correct Answers for the Identification of gelotophobes Emotion for CP Participants

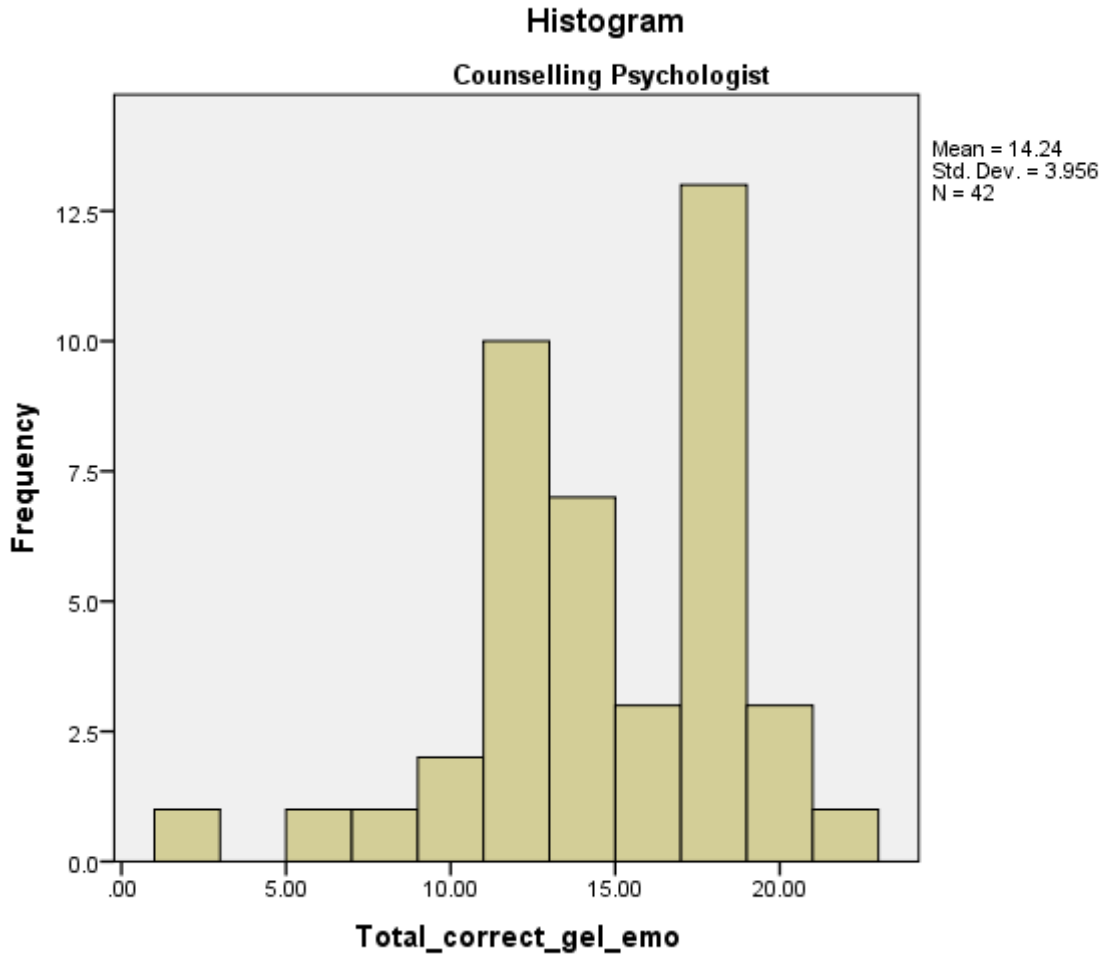


Figure 2

Histogram Displays the Distribution of Correct Answers for the Identification of gelotophobes Emotion for PO Participants

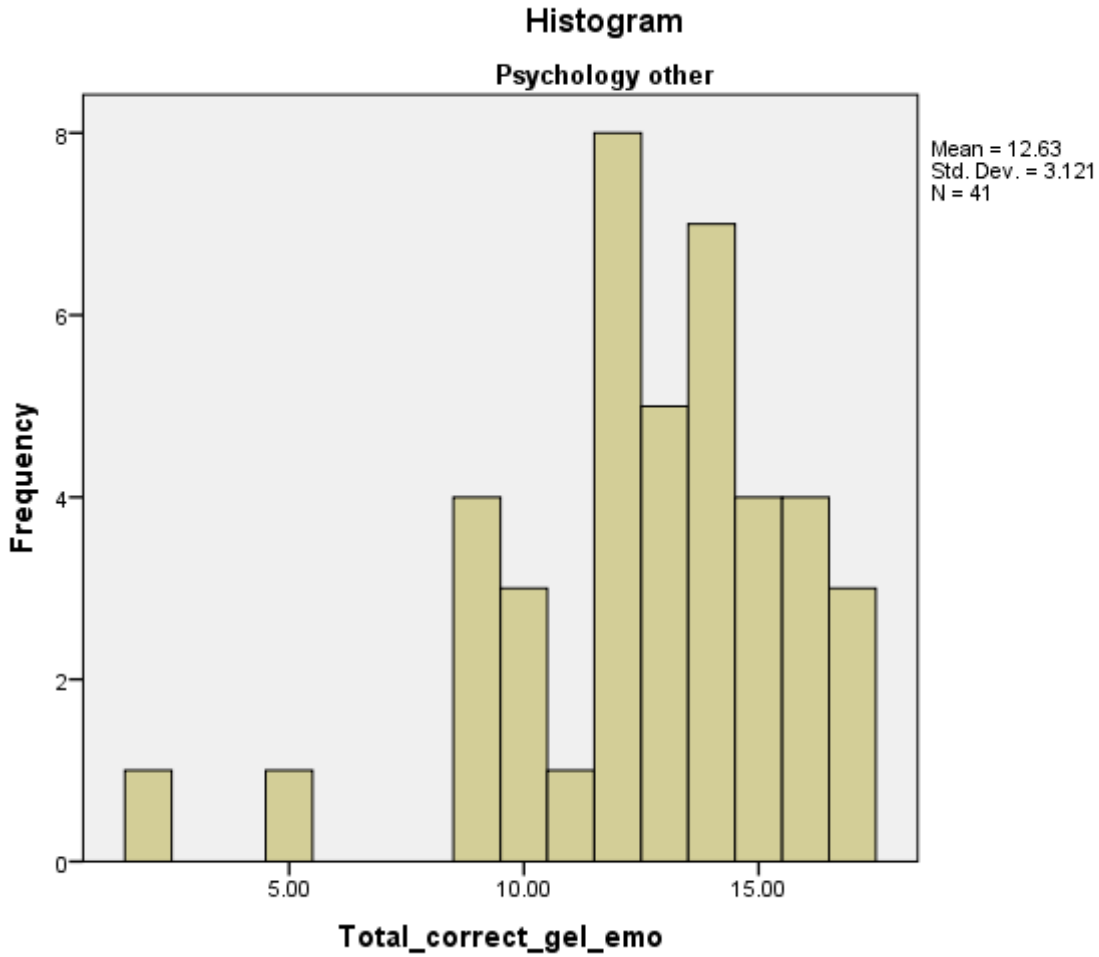
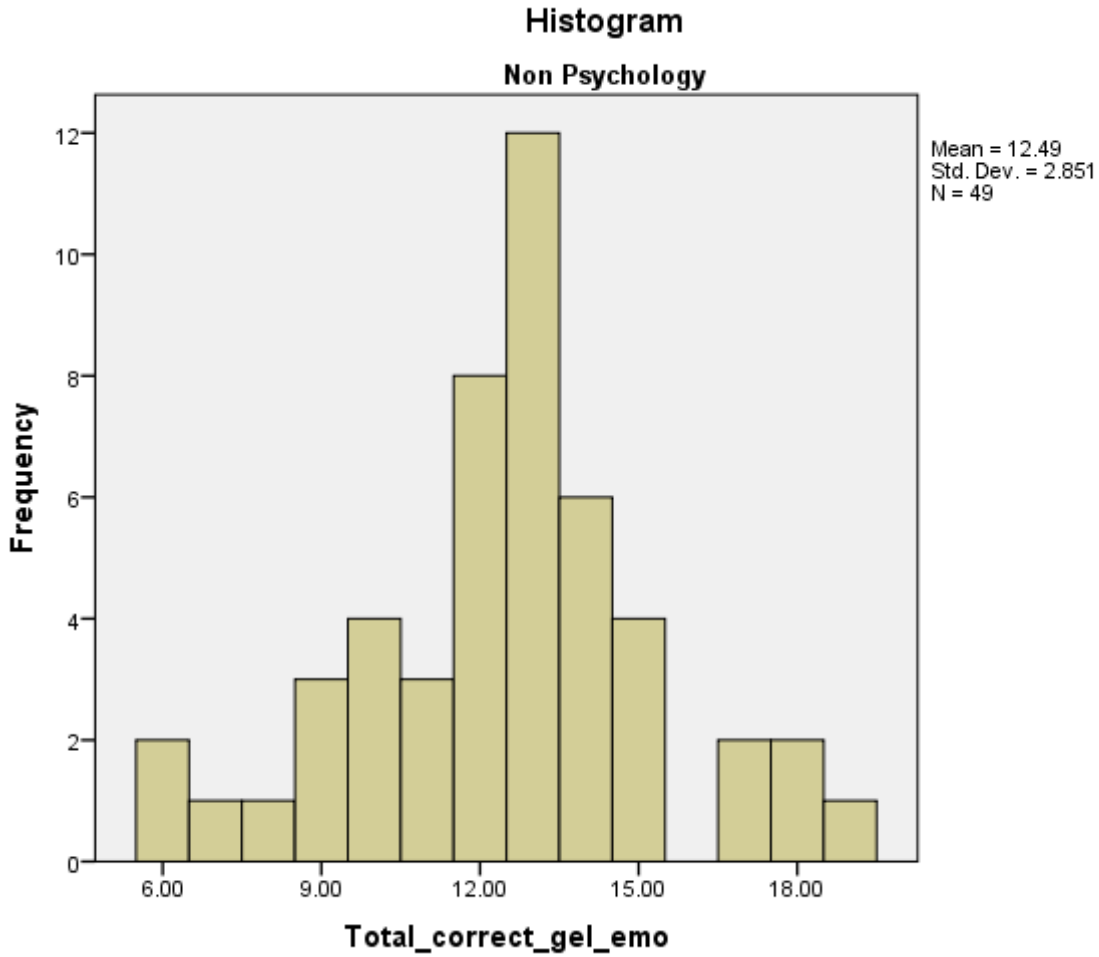


Figure 3

Histogram Displays the Distribution of Correct Answers for the Identification of gelotophobes Emotion for NP Participants



Appendix F

The histograms for H_{5a} CP participants' affective empathy will be higher than NP and PO participants are displayed below in Figures 1, 2, and 3.

Figure 1

Histogram Displays the Distribution of Affective Empathy for CP Participants

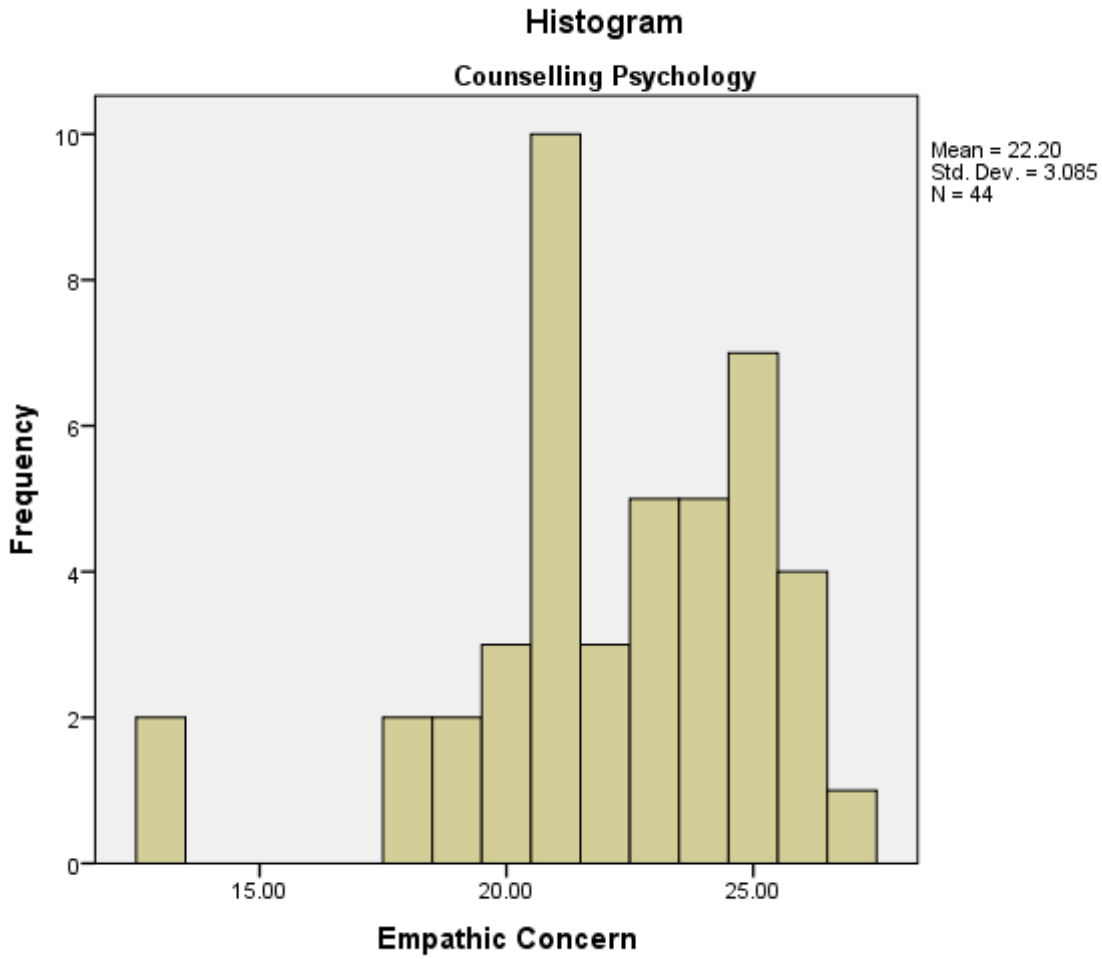


Figure 2

Histogram Displays the Distribution of Affective Empathy for PO Participants

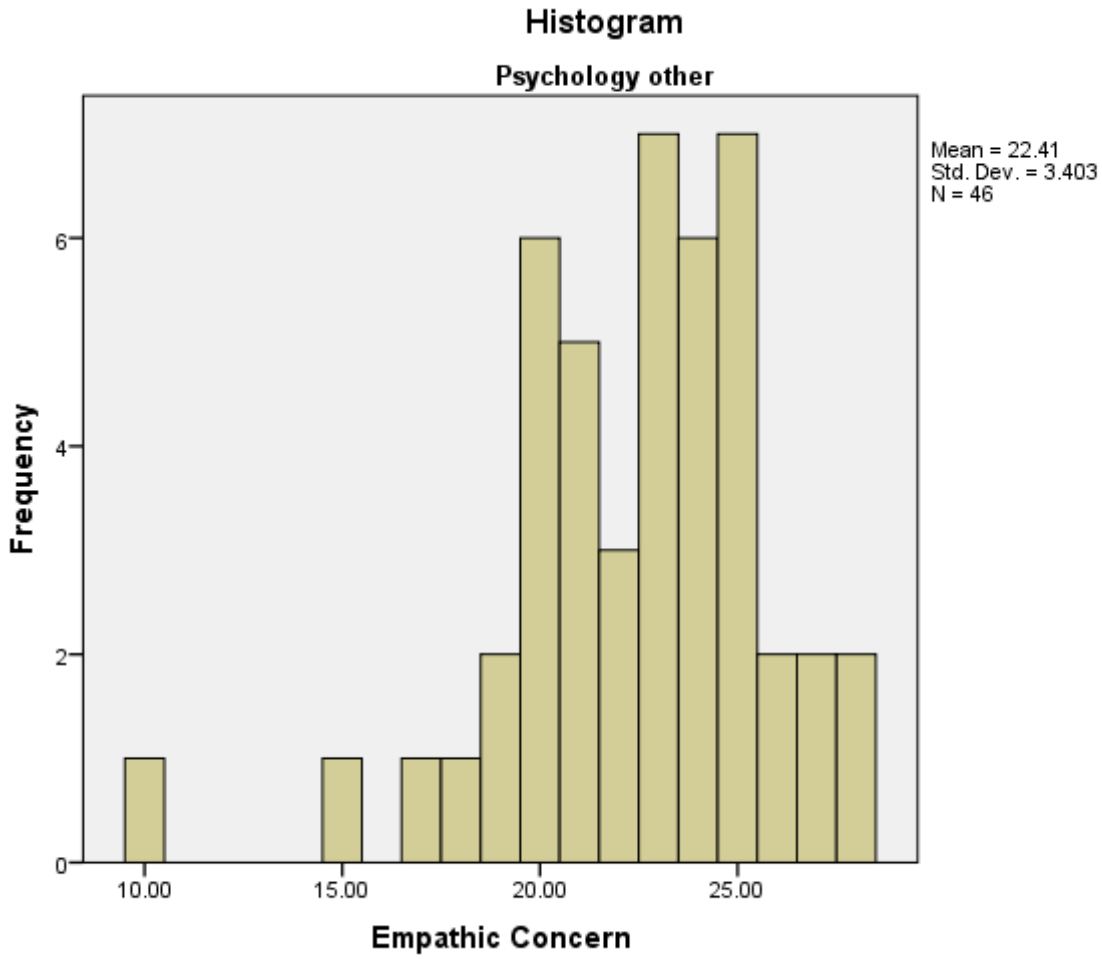


Figure 3

Histogram Displays the Distribution of Affective Empathy for CP Participants